

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON ADVANCE ACT ACTIVITIES

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TUESDAY,

MARCH 4, 2025

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The Commission met in the Commissioners' Hearing Room,  
at 9:00 a.m. EST, David A. Wright, Chairman, presiding.

COMMISSION MEMBERS:

DAVID A. WRIGHT, Chairman

CHRISTOPHER T. HANSON, Commissioner

ANNIE CAPUTO, Commissioner

BRADLEY R. CROWELL, Commissioner

MATTHEW J. MARZANO, Commissioner

ALSO PRESENT:

CARRIE SAFFORD, Secretary of the Commission

BROOKE CLARK, General Counsel

NRC STAFF:

MIRELA GAVRILAS, Executive Director for Operations

MIKE KING, Special Assistant for ADVANCE Act, Office

of the Executive Director for Operations

CHRISTOPHER REGAN, Director, Division of Rulemaking,

Environmental, and Financial Support, Office

of Nuclear Materials Safety and Safeguards

MICHELE SAMPSON, Director, Division of New and

Renewed Licenses, Office of Nuclear Reactor

Regulation

JEREMY GROOM, Deputy Director, Division of

Radiological Safety and Security, Region IV

ERIC DILWORTH, Deputy Chief Human Capital Officer,

Office of Chief Human Capital Officer

#### EXTERNAL PANEL:

WILLIAM MAGWOOD IV, Director-General, Nuclear Energy

Agency

DOUG TRUE, Chief Nuclear Officer, Nuclear Energy

Institute

KATHRYN HUFF, Associate Professor, Department of

Nuclear, Plasma, and Radiological Engineering,

University of Illinois Urbana Champaign

NADER MAMISH, Vice President for Nuclear Regulatory

Affairs, Westinghouse

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

2 9:00 a.m.

3 CHAIRMAN WRIGHT: Good morning, everyone. I will call  
4 this meeting to order. The passage of the ADVANCE Act was a clear message  
5 to the NRC that the time for reform of your regulatory processes is now, and I'm  
6 looking forward to our discussion today on this topic.

7 Before we get started I wanted to take some time to speak  
8 directly to the NRC staff. We know there's a lot of change happening. In fact,  
9 it's a very dynamic environment, but I'm confident that our staff will respond, as  
10 you always do, by staying focused on our mission. And for one, myself, I  
11 believe in you and I know you can do it. And I'm sure that my colleagues share  
12 that as well.

13 In today's public meeting of the NRC we're going to hear from  
14 two panels. The first will be an external panel that will provide their  
15 perspectives on the implementation of the ADVANCE Act. The second is a  
16 staff panel that will discuss actions the agency is taking in response to the act.  
17 After that we'll take a short break between the two panels and, as is our  
18 custom, we'll hold questions from the Commission to the end of each panel.

19 I think this meeting is very timely and I thank everyone for  
20 their participation today. I'm looking forward to a good dialogue this morning.

21 Before we start let me ask my colleagues if there's any  
22 comments any of you would like to make. Anybody?

23 (No audible response.)

24 CHAIRMAN WRIGHT: Okay. Thank you.

25 So with that, we'll begin. We're happy to be joined by the

1 Director General of the Nuclear Energy Agency, William "Bill" Magwood, who's  
2 live from Paris this morning, by the way. And Bill is a former Commissioner of  
3 the NRC, as you know.

4 DG Magwood, I'm going to turn the floor over to you.

5 MR. MAGWOOD: Thank you very much, Chair, and it's a  
6 great pleasure to see all of you this morning, Chair, Commissioners, friends,  
7 colleagues. I am sorry I'm not there with you in person today, but I do look  
8 forward to visiting you myself in the coming weeks and continue to build on the  
9 very strong cooperation between the NRC and the Nuclear Energy Agency.

10 Before I begin my remarks, let me once again congratulate  
11 you, Chairman, on your appointment. You've been a fantastic friend to the  
12 agency over the years and we're very excited to work with you in this new  
13 capacity.

14 Also, my congratulations and welcome to Commissioner  
15 Marzano. I look forward to meeting you in person. Your impressive  
16 background I think will add a great deal to the Commission especially since you  
17 once worked in my laboratory. So look forward to seeing all of you in person.

18 I think that the most important thing for me to say is that we  
19 certainly see the ADVANCE Act as a very, very positive step forward towards  
20 modernizing the legal and regulatory framework for civilian use of nuclear  
21 energy in the United States. It takes into consideration the current environment  
22 on energy security where not just in the United States but really in countries  
23 around the world have heightened concern.

24 And we are very impressed with the new mission statement  
25 for the agency. I find that it is a good balance in maintaining the core essence

1 of having an independent regulatory body, but also closely aligned to the  
2 missions that are before you, missions that are very similar to those of the NEA.

3                   Given the direction of the act to further international  
4 cooperation, we are very much looking forward to working with you and working  
5 more closely with all of our colleagues in the U.S. in years to come.

6                   It's very important to note that while regulators have national  
7 responsibilities, the market for nuclear energy technologies is a global one.  
8 And it's really far past time that regulators around the world embrace reality that  
9 if they're going to avoid being obstacles to progress, that they are going to have  
10 to have a global vision to some degree.

11                  Congress has given very clear direction in this way as part of  
12 the ADVANCE Act, Section 101 in particular. It gives the Commission the  
13 mission to support the development of nuclear regulatory organizations and  
14 legal frameworks in foreign countries and to consider the best ways to use  
15 international technical standards for the establishment of licensing and  
16 regulatory basis. I think that if there was a clear signal the NRC needed to take  
17 a more global mind set as all these new technologies are making their way to  
18 market, this is certainly it.

19                  Organizations comprised of like-minded countries like the  
20 NEA provide an efficient and effective framework for the Nuclear Regulatory  
21 Commission to coordinate and engage in such activities. It's clear that  
22 Congress understands the nature of the membership of the NEA and the OECD  
23 and that working with like-minded countries, highly-developed economies  
24 provide a path to successful implementation of the ADVANCE Act.

25                  In that respect I note that we at the NEA are planning a

1 discussion on achieving a realistic path to multinational review of SMRs with  
2 like-minded countries of the NEA in the context of our upcoming Road Maps to  
3 New Nuclear Ministerial Conference coming up this September. This will be an  
4 outstanding opportunity for NRC to implement this vital congressional guidance,  
5 and in that way we will look forward to inviting the Chairman of the NRC to  
6 participate in this discussion along with other leading regulators. So we will be  
7 forwarding that to you in the weeks to come.

8                   We also appreciate the provisions of the ADVANCE Act to  
9 focus on the need to develop the workforce of the future. As you know, during  
10 my 10 years at both DOE and NRC I made this a priority focus. I'm very proud  
11 of the important contributions the NRC has made to the development of young  
12 scientists and engineers throughout the United States.

13                   The ADVANCE Act directs the NRC to support international  
14 coordination and training programs to foreign countries relating to civil nuclear  
15 licensing and oversight to improve the regulation of nuclear reactors and  
16 radioactive materials. The NEA is a leader in this area through its education  
17 and training programs in nuclear law, radiological protection, and encouraging  
18 students to pursue careers in the nuclear field. The NEA Global Forum on  
19 Nuclear Education, Science, Technology, and Policy and the Nuclear  
20 Education, Skills, Technology Framework are standouts in this area and we  
21 believe that they will help advance the goals the NRC has in these directions.

22                   We at the NEA look forward to working closely with the NRC  
23 as it implements this new congressional direction and we look forward to  
24 seizing this historic moment. My friends and colleagues on this panel will also  
25 be providing excellent observations and recommendations that encourage the

1 Commission to review carefully.

2                   Before I give up the floor, I'll make an observation as a former  
3 Commissioner and continued member of the NRC extended family. It's my  
4 feeling that much of the direction in the ADVANCE Act that you will be  
5 implementing in the years to come were already in the NRC's remit and  
6 authority. The agency has always had the tools and capacity to do all the  
7 things in the act, and really more. And as you move forward to implement the  
8 act and move forward into the second half-century of the NRC's existence there  
9 are three things I think the Commission should be looking about as you go  
10 forward.

11                   First, I deeply feel it's vital to reinvigorate, reenforce, and  
12 encourage the NRC's instinct to constantly challenge itself to be an ever more  
13 efficient and effective regulator. I think that whatever congressional direction  
14 you get from the outside the instinct to push for this inside is even more  
15 important.

16                   I also think that the culture changes of the modern era make  
17 the tasks of leaders different from the past. Given this, all regulators must find  
18 new and better ways to achieve alignment at all levels with the policies,  
19 understandings, and philosophies related to risk-informed regulation and  
20 performance-based regulation.

21                   And finally, in an expanding global market for nuclear  
22 technologies in which applications and uses of nuclear energy are likely to be  
23 far broader and diverse than we've ever seen before, I think an important  
24 question the NRC has to ask itself is how do you define and understand what  
25 the U.S. and the NRC leadership means? It may be a different perspective on

1 that than we've had in the past and I think it is worth giving careful thought to  
2 this.

3 So again, Chair, Commissioners, thank you very much for the  
4 time. I'm looking forward to the discussion today.

5 CHAIRMAN WRIGHT: Thank you, Bill. And you gave me a  
6 real good opportunity to put in a shameless plug for our Regulatory Information  
7 Conference which is coming up next week. And hope we see you there. And if  
8 you have not registered, you can still register online. It's free. And we look  
9 forward to having you be a participant.

10 So with that, Doug, we're going to hear from you, the Chief  
11 Nuclear Officer at the Nuclear Energy Institute. Welcome today and the floor is  
12 yours.

13 MR. TRUE: Thank you, Mr. Chair and Commissioners, for  
14 having me here today. I'm pleased to be able to participate in this session  
15 today with a focus on the ROP, but also more broadly the ADVANCE Act.

16 I prepared these slides 6 weeks ago, or maybe more like 8 or  
17 10 weeks ago, and I'm going to deviate a little bit from my original remarks to  
18 sort of reflect on the moment. It's been a pretty extraordinary six weeks here in  
19 Washington and I want to give credit to the Commission and the NRC staff for  
20 continuing to keep their eye on the ball and work forward on the things that are  
21 in front of them. It's really important that we do that. The industry needs the  
22 NRC to move forward and I think recognizing that progress is important, and  
23 particularly the ADVANCE Act. I think the staff has done a nice job of  
24 continuing to work forward.

25 The U.S. needs a strong independent regulator that provides



1 a social license here in the U.S. and provides a foundation for us to be able to  
2 export U.S. technologies worldwide. NRC needs staff to support that mission,  
3 adequate staff. But the industry is at an inflection point where there's an  
4 opportunity ahead of us like we haven't seen maybe ever. And so efficiency  
5 and action remain important, and it's important that we keep our eye on those  
6 balls as well.

7 And that brings us to the ADVANCE Act. And the  
8 Commission's role on this to model effective decision-making and good  
9 decisions that promote efficiency I think is also really important in this. I think  
10 the staff's working hard and it's going to be landed in your laps shortly. So I'm  
11 pleased to be here to talk to you about the ADVANCE Act.

12 I'll go to my first content slide now. Many of you know me  
13 over the years as being a data -- next slide, yes -- as a data person, probably  
14 coming through my background in PRA. So I thought it would be fitting to start  
15 with some data to help us reflect on the ROP and how things have progressed  
16 over the last 25 years.

17 On one side of this slide we just tried to pick out a couple of  
18 metrics on how industry performance has gone under the ROP. The upper  
19 circle reflects the number of greater-than-green inspection findings that occur in  
20 the first five years versus the last five years. And that trend is not just to --  
21 happen to be selections. That's an overall trend that has occurred through that  
22 time. Similarly, the bottom graphic shows a performance indicator is in the  
23 same vein, those that exceed the green-white threshold.

24 On the right-hand side it reflects more at the high level how  
25 industry has performed and the fraction of plants receiving normal oversight,

1 staying in column 1, versus those that needed enhanced oversight in column 2  
2 or greater over those first five years and last five years. So significant reduction  
3 in the number of plants. Still have plants leaving column 1. That should be  
4 expected with any good oversight process I think, but a significant  
5 improvement. And as you are all aware, back in 2020 we published a  
6 document, NEI 20-04, that describes in great detail all of these metrics and  
7 many others that reflect this improved performance.

8                   Next slide, please? This slide sort of turns and looks at  
9 what's been going on more recently. On the left side we talk about the Part 170  
10 fees. So over the last several years NEI has been collecting our member e-  
11 billing data and assessing it. And the left donut chart reflects the aggregate  
12 total of where the Part 170 fees have been charged by the NRC. The left half of  
13 that donut reflects on the direct and indirect inspection charges which comprise  
14 over half of those total fees. So inspections are about half of the total 170 fees.

15                   It's notable that indirect charges actually exceed the direct  
16 inspection charges with a whopping 27 percent of the total fees. You would  
17 think in this day and age and after 25 years of doing this we'd be better at doing  
18 those indirect things and focusing our efforts on the actual inspection activities.

19                   Finally, I'll also point out in the upper right-hand corner the  
20 orange slice, which is a sort of modest 21 percent, which are licensing activities  
21 submitted by licensees. And I pull that out separately because, as you've seen  
22 in our recent survey, there's a lot coming at us. That orange slice is about to  
23 grow substantially, I think by a factor of two over in the major areas of license  
24 renewals and applications for power uprates and otherwise. And so whatever  
25 we can do to become more efficient in inspection processes is going to benefit

1 us and benefit you in this era.

2 The pie chart on the right-hand side takes a look at greater-  
3 than-green findings over the last about seven years and classifies them in how  
4 they were revealed. What mean by revealed are sources, how we found out  
5 about them. And the vast majority of them, over 80 percent, were self-  
6 revealing, either a plant event, or an equipment failure from something that was  
7 safety-significant that occurred, inspection found or there was a performance  
8 deficiency. But it wasn't through inspection activities that yielded that.

9 We also had the next biggest slice. About 10 percent came  
10 from licensee-identified items where the licensee was doing its own reviews  
11 and found the issues. And then about 10 percent, a little less than 10 percent,  
12 actually came from headquarter and resident inspector inspections under the  
13 ROP process.

14 Next slide, please? So when we get to ROP focus areas, I'm  
15 not going to go through all the items here. I'll leave that to the Q&A portion.  
16 But I got to say that -- as in my opening remarks that we're really encouraged  
17 by the staff's approach in the ROP area. I think we've had a lot of very  
18 constructive public interactions on this. I think we've seen situations on a  
19 number of occasions where industry proposed something, the staff reviewed it,  
20 came back with even an enhancement of that, how to be more efficient. That's  
21 a really good sign when we're looking at how to achieve efficiency when we  
22 have staff that are leaning into this.

23 Next slide, please, to try and wind up my time here. Since  
24 you asked me to speak to the ROP, I've done that. I want to cover a few other  
25 items on the ADVANCE Act because I'm sure we could get into robust

1 discussion on almost any of these.

2 And we listed a number here, and I'm happy to take questions  
3 when we get there, but I think it's one of the -- the take-away box is important  
4 that this needs to apply across the agency. This is not an NRR thing. It needs  
5 to be NSIR, NMSS, even OGC, in my opinion. All aspects of the agency need  
6 to be focused on how can we be more efficient and take this to heart? And that  
7 will be the true test of whether we can actually achieve the efficiencies that the  
8 ADVANCE Act calls for us to seek.

9 With that, I'll wind up my session and wait for your questions.

10 CHAIRMAN WRIGHT: Thank you, Doug. Really appreciate  
11 your presentation. And we will have questions when we get there.

12 Next we're going to hear from Dr. Katy Huff, who's an  
13 associate professor in the Department of Nuclear, Plasma, and Radiological  
14 Engineering at the University of Illinois, Urbana-Champaign. Dr. Huff is joining  
15 us online.

16 So I will let you take it from here. Good to see you.

17 DR. HUFF:

18 (No audible response.)

19 CHAIRMAN WRIGHT: You're on mute.

20 DR. HUFF: I think I -- okay.

21 CHAIRMAN WRIGHT: Yes, you're there.

22 DR. HUFF: Great. Thanks very much. Thank you very much  
23 for having me. I greatly appreciate the opportunity to be here with you. As  
24 others have said, congratulations on new chairship, new Commissioners, and  
25 on your new mission statement. I have prepared a few slides and I'll just jump

1 right into those starting with a disclaimer that I am speaking entirely on -- in my  
2 role at the University of Illinois and under no other role.

3                   Next slide? So the American Nuclear Society has had  
4 recommendations over many years with regard to how NRC can improve their  
5 efficiencies across a range of different activities. I highlight a few of these  
6 which are sort of most formally communicated to NRC through American  
7 Nuclear Society position statements because this is a society made mostly of  
8 highly technical professional nuclear engineers across the United States who  
9 really want to see nuclear energy deployed.

10                   You'll see in these recommendations over the last many years  
11 many recommendations that the NRC staff, having a very similarly highly  
12 technical professional background as that membership of the American Nuclear  
13 Society, have implemented or have made progress toward implementing. I  
14 think among these the most important one that I would like to sort of call out is  
15 that no matter what is done to improve environmental efficiencies and  
16 environmental reviews, which is the topic of my discussion here, the state-of-  
17 the-art safety requires a well-staff, well-funded, safety regulatory authority which  
18 is responsible for independently assuring operational safety and protection of  
19 the environment.                   So I think some of these words need to always  
20 be kept in mind. And I think NRC does need to be congratulated for continuing  
21 to maintain its independence and continuing toward remaining well-staffed and  
22 well-funded.

23                   Next slide? The reason the American Nuclear Society of  
24 course has these recommendations is associated with its mission which  
25 includes the expansion of nuclear power. And of course while we've seen a

1     downturn over the last few decades, the increase by two of new nuclear  
2     reactors is a credit to the Nuclear Regulatory Commission. Looking back on  
3     ways in which this process can be made more efficient should not undermine  
4     the fact that it has gone through and we have two new reactor units in the  
5     United States in the form of Vogtle 3 and 4.

6                     Next slide? I think a lot of the recommendations associated  
7     with improving the efficiency of environmental reviews in the NRC are extremely  
8     well captured by Dr. Matt Bowen and Rama Ponangi from Columbia. That  
9     Center on Global Energy Policy has produced this report of which I pull out the  
10    four main recommendations that I'd like to highlight here.

11                    One, they recommend that the NRC should pare down two of  
12    the analytical sections of the EIS: (1) the need for power, and (2) the  
13    alternatives chapters. These are not currently adding much value, especially  
14    because they're somewhat long. I'll talk about that again in a minute.

15                    But the second recommendation is that the NRC should use  
16    generic environmental impact statement approaches. This has been effective  
17    for reactor license renewals and it could really improve the speed with which  
18    one does new reactor licensing. Many issues are expected to be generic for  
19    new reactor projects and those issues should be simplified in this manner.

20                    Third, NRC is encouraged by this report to use the concise  
21    environmental assessment review instrument instead of an EIS for every  
22    subsequent deployment of a reactor at the same site or to sites with operating  
23    reactors or retiring coal plants where it's very likely that the EA will reveal no  
24    need for an EIS.

25                    And finally, remove the EIS requirement for each new reactor

1 licensing. So not just subsequent reactors, but take it out of Part 51  
2 regulations. This would give NRC the flexibility to choose either an EIS or an  
3 EA to tailor those reviews to specifics of a given project.

4                   Next slide? This report is really good because it's full of data.  
5 Some of the data is really targeting how NRC can tailor its EISs towards the  
6 requirements in the Fiscal Responsibility Act of 2023, which has specific page  
7 limits in red here. There's a 150-page page limit that NRC regularly blows past  
8 due to the length and technical complexity of their EISs. Your 300-page limit for  
9 extraordinarily complex items also gets blown past. These are not to sort of  
10 pick on NRC, but rather to show the scale of improvement that could be made  
11 by meeting this Fiscal Responsibility Act page limit.

12                   Next slide? So it's really important to note that this isn't  
13 exactly aligned with the page limits associated with COLs. So the page limits  
14 are the same, but for each COL the numbers actually go way up for some of the  
15 projects in the past while not all of them. So Vogtle 3 and 4, the most  
16 successful of these license applications, was one of the shortest.

17                   Next slide? One thing that I was curious about that the paper  
18 answered is whether the page numbers correlated with NRC staff time. And  
19 while it's not a perfect correlation you do see some trends where the longer the  
20 EIS the more staff time and contractor time was required to do the review, and  
21 the shorter the EIS the less staff time and less contractor review was required.  
22 So I thought that was really, really important information brought out by this  
23 report.

24                   Finally, next slide, the Bowen and Ponangi recommendations  
25 specifically highlight some of the NRC assessments of the actual environmental

1 impacts associated with each of the resource chapters and specifically draws  
2 one's attention to some of the resource chapters that do not have a high impact  
3 in environmental changes ever, right? So many of these rows are completely  
4 green, which means there's a very small impact environmentally determined in  
5 each of these chapters. These may be targets for reducing page numbers  
6 because if we've never found a significant impact, we probably won't be likely to  
7 find a significant impact in the future.

8                   Next slide. I know we'll hear from the NRC staff, but I do just  
9 want to highlight in orange many of these recommendations are already part of  
10 the kind of thinking that NRC staff are doing with regard to some of these  
11 changes. So I do want to congratulate you on having an aligned approach.

12                   And finally, I'll leave you with the next slide, which is that the  
13 American Academies of course wrote a very long report regarding how to  
14 advance the speed of new nuclear reactors, and one of their recommendations  
15 is associated with not just the emergency planning zone, but also guidance  
16 governing siting, which does tie into environmental impact assessments. And if  
17 you're looking for motivation, I think that section of the National Academies  
18 report is quite good. That's all. Thank you.

19                   CHAIRMAN WRIGHT: Thank you, Dr. Huff. That report is  
20 very interesting. I can't wait to delve into that with you.

21                   We're going to finish up the presentations on this external  
22 panel with Mr. Nader Mamish, the Vice President of Nuclear Regulatory Affairs,  
23 Westinghouse and a former NRC employee.

24                   Nader, you're up.

25                   MR. MAMISH: Thank you, Chairman, and good morning to



1 you and to your fellow colleagues. And thank you for the opportunity to join you  
2 at this meeting to share Westinghouse's perspectives on efficient regulation and  
3 oversight.

4                   Next slide, please? The ADVANCE Act sends a clear  
5 message that the time to be a modern risk-informed regulator is now and that a  
6 cultural shift is necessary and urgent to deploy clean advanced nuclear energy.  
7 Westinghouse appreciates the Commission's efforts to revise its mission  
8 statement and applauds the Commission's SRM which noted in part that the  
9 NRC protects public health and safety by enabling the safe and secure use of  
10 nuclear technologies for the benefit of society and the environment; enabling,  
11 rather than encumbering the safe and secure use of nuclear energy.

12

13                   An effective revised NRC mission statement can set the tone  
14 for the NRC, but a mission statement alone is not enough. NRC leaders must  
15 drive the necessary cultural changes at the NRC to ensure that enhanced  
16 efficiencies and risk-informed regulatory decisions are realized at all levels in  
17 the agency.

18                   Next slide? Advanced and microreactor licensing has been  
19 evolving in the past couple of years with significant NRC effort and industry  
20 engagement. The policy issues on this slide can greatly advance the goals of  
21 the act. They have been previously presented to the staff in our comment letter  
22 of September 2023 and have been discussed in detail in NEI's paper of July  
23 2024 involving regulation of rapid high-volume deployable reactors in remote  
24 applications, otherwise known as the RHDRA paper.

25                   Westinghouse believes that rapid deployment could be

1 facilitated by streamlined COL review process for sites that fit within a pre-  
2 characterized set of site criteria or an efficient licensing process that allows for  
3 licensing of multiple units in multiple locations.

4                   Regarding staffing levels during normal operations,  
5 Westinghouse believes that staffing should be commensurate with the size,  
6 simplicity, and reduced risks associated with microreactors.

7                   Next slide? The upcoming LEU+ license amendment request  
8 for our Columbia facility provides an opportunity for increased efficiency in  
9 reviewing the license amendment request and associated environmental report.

10                   As you're aware, Westinghouse completed a 40-year license  
11 renewal in September of 2022. And so we believe that the NRC should  
12 leverage the conclusions from that review to support approval of the upcoming  
13 license amendment request. We believe that the protection offered by the  
14 existing well-established programmatic elements will continue to ensure that  
15 adequate protection is maintained and the environment impact statement for  
16 the 40-year license renewal should be leveraged to conclude that an  
17 environment assessment, not an EIS, is needed for the upcoming LEU+ license  
18 amendment request.

19                   But more broadly speaking, and Dr. Huff alluded to this, the  
20 provisions of the -- as the provisions of the act are implemented, the NRC  
21 should, to the extent permitted by law and regulations, default into the issuance  
22 of environmental assessments rather than EISs.

23                   Lastly, Westinghouse generally aligns with many of the  
24 comments submitted in January by NEI on fuel facility licensing and oversight  
25 efficiencies.

1                   Next slide? In terms of plant licensing, Westinghouse  
2 appreciates the NRC's efforts to drive efficiencies in the design certification  
3 rulemaking. We are eager to see the direct final rule language and as  
4 appropriate to work with the staff on the timely publication of the final rule in the  
5 Code of Federal Regulation. This is a great example of an efficiency that is  
6 totally and completely consistent with the ADVANCE Act.

7                   Regarding new plant licensing applications, we believe that  
8 the staff should apply precedent to the maximum extent possible. NRC staff  
9 can rely on existing safety conclusions and focus attention novel features or  
10 scaling concerns associated with the differences in power between plant  
11 designs. Here I'm referring to AP1000 and AP300.

12                  Another example of an efficiency involves minimizing the use  
13 of Tier 1 and eliminating Tier 2 star information. Specifically, the staff should  
14 accommodate streamlined methods for re-characterizing or dispositioning this  
15 information without the need for license amendment requests. Minimizing the  
16 use of Tier 1 and Tier 2 star information increases efficiency by reducing the  
17 need for non-safety-significant license amendment requests during both  
18 construction and operation. We believe that the staff should also target more  
19 efficient review expectations. For example, a maximum of 24 months for design  
20 certifications and a maximum of 18 months for topical reports.

21                  Finally, we applaud the staff for its focused efforts to support  
22 international regulators with their reviews of U.S. reactor designs and request  
23 that those efforts continue as they support the goals of the ADVANCE Act and  
24 more broadly foreign policy and United States' goals and objectives.

25                  Next slide? Through the ADVANCE Act Congress mandated

1 that the NRC take bold actions, enhance efficiency, and prepare for future  
2 expansion of nuclear technologies and energy, both domestically and  
3 internationally. To meet the intent of the ADVANCE Act the NRC must engage  
4 in a cultural change to enable the safe and secure use of nuclear energy and  
5 ensure that efficiency permeates the entire organization. Thank you and I'd be  
6 happy to take any questions.

7 CHAIRMAN WRIGHT: Thank you, Nader.

8 And thank each of you, both here in the room and online, for  
9 your presentations.

10 The overwhelming bipartisan support of Congress in passing  
11 the ADVANCE Act was a clear direction to the NRC that the time to reform our  
12 regulatory processes is now.

13 And I'm looking forward to getting into the Q&A portion. And  
14 as luck would have it I think I won the draw, so I get to go first.

15 DG Magwood, and I guess Dr. Huff, I think I want to start with  
16 both of you on something that actually I wasn't planning to ask, but DG  
17 Magwood kind of brought it up.

18 Bill, you talked about three things that we needed to  
19 challenge ourselves with, right, three questions to look at. One was to challenge  
20 ourselves. The second was to achieve alignment at every level in the agency.  
21 And third, you -- which is the one that intrigues me, was for us to kind of reflect  
22 on what does U.S. leadership mean today.

23 And one, I will take that as a task to do myself, but I'd kind of  
24 like to hear from you and from Dr. Huff, because she has been in a very high  
25 position in DOE and has traveled the world as well. I'd kind of like to hear if you

1 have any reflections or have any ideas about what U.S. leadership would mean  
2 today where the NRC is concerned in this space.

3 MR. MAGWOOD: I appreciate this question, Chairman. It's  
4 very important to note that NRC is -- while I want to answer the question in  
5 context of the NRC, the NRC is not a stand-alone entity in this respect. I really  
6 do believe -- and I think that we discussed this when I was chairman of the  
7 Nuclear Energy Advisory Committee -- Katy put me on there, by the way -- that  
8 we really felt strongly that there needed to be a whole-of-government probing of  
9 that question: What does it mean to be a leadership in the world today,  
10 particular in the nuclear sector?

11 My answer for the NRC is to recognize that international  
12 cooperation is not just good for allies and recipients. It really does directly  
13 benefit U.S. interests in part by providing business opportunities for U.S.  
14 developers that in turn can contribute to U.S. goals to achieve production scale  
15 of new reactors.

16 But in order to enable to an environment where Nader, for  
17 example, could sell dozens of AP300s, you need to have a very -- you need to  
18 have an organizing principal that will enable regulators and policy makers in  
19 other countries to align with the type of licensing approach that the U.S. is  
20 taking. But that won't happen by itself and it won't happen without aggressive  
21 positive engagement overseas. And that is something that is not easy to do  
22 and it doesn't happen just simply by saying we want you to do this. It means  
23 engaging with partners, having the discussions, sitting in the meetings, and  
24 showing how the benefits really accrue to everyone when we can align on  
25 common directions.

1                   But that requires a great deal of leadership and I can tell you,  
2                   as the head of an international organization, international organizations can't do  
3                   that. We can facilitate it, but we can't make it happen. It has to come from  
4                   member countries, and clearly the U.S., as certainly the biggest of our member  
5                   countries, really has I think the opportunity to assume that leadership role.

6                   CHAIRMAN WRIGHT: Thank you.

7                   DR. HUFF: I'll just say, yes --

8                   CHAIRMAN WRIGHT: Dr. Huff --

9                   DR. HUFF: Go ahead.

10                  CHAIRMAN WRIGHT: -- go ahead. No, I was going to see if  
11                  you had --

12                  DR. HUFF: I couldn't agree more with Director General  
13                  Magwood. I think that one piece that I would add is the 100-year relationship  
14                  that we establish with other nations when we are able to supply them with  
15                  American nuclear reactor technology supported by American nuclear regulatory  
16                  assessments of that technology.

17                  The independence, the strength, the standards of the Nuclear  
18                  Regulatory Commission give confidence in those purchases. And a lot of  
19                  countries have seen it firsthand that that is one of the key components of  
20                  bringing secure safe energy-secure nuclear reactors to other nations that  
21                  involve American technology. The NRC, while it improves its efficiencies, must  
22                  continue to maintain that high standard. I would say maintain the standards,  
23                  but decrease the barriers to some of these licenses and you'll be hitting the  
24                  mark.

25                  CHAIRMAN WRIGHT: Thank you for that. And I don't have

1 any questions for you, Dr. Huff, but your presentation was good and it really  
2 strikes a chord with me because I really believe that the FRA amendments to  
3 NEPA provide us an opportunity to enhance the efficiency of the NRC's  
4 environmental reviews. And having been a former public utility commissioner I  
5 totally get that need for power part of it because that should be more of a PUC  
6 area, not an NRC area.

7 I agree with the recommendations from the report that you  
8 referenced in your presentation, that we should pare down our analysis of the  
9 need for power and alternatives and that we should take advantage of the use  
10 of EAs rather than EISs for new reactor builds.

11 So I think we are aligning in a lot of these things within --  
12 internally here and I look forward to how we develop the GEIS, the advanced  
13 reactor GEIS and moving forward as quickly as possible to allow these early  
14 movers that are looking to build now to take advantage of this EIS as well as  
15 using the information gathered from these early environmental documents to  
16 inform the future GEIS.

17 So I look forward to our working together here as a team at  
18 the NRC to do the things we need to do to expand the use of categorical  
19 exclusions and through the use of other agencies' CATEXs so that we can build  
20 those necessary data sets and take advantage of those efficiencies.

21 So I really appreciated your presentation. I look forward to  
22 going in detail into that report. So thank you for that.

23 Doug, we've got about three minutes to go and I wanted to  
24 come to you. From your perspective what do you think is the biggest  
25 opportunity for the agency to maximize efficiency? You talked about it a little

1 bit, but if there's -- where do you think the low-hanging fruit is for us?

2 And then I guess the second thing I was going to ask you  
3 about had to do with do you have any thoughts on some ways we could  
4 address the time we spend on non-safety issues?

5 MR. TRUE: Yes, I think that's a key part of it because if you  
6 can stop focusing on things that are not safety-significant, it gives you more  
7 time to be able to focus on the things that are truly safety-significant and  
8 hopefully get those processed in an efficient manner.

9 I think under the ADVANCE Act, my slide generally talked  
10 about it. I covered most of the main areas. I think the NRC regulated a pretty  
11 static industry for 50 years. And then it's not surprising they would get to a  
12 moment like this where all of a sudden everybody's saying, well, let's hit the gas  
13 and deploy all this extra stuff that we're not in a position to -- with processes or  
14 even regulations necessarily to support that pace.

15 So getting to the point where we have efficient predictable  
16 licensing schedules I think is really important. Progress has been made so far.  
17 Whether we can sustain that at scale I think remains to be seen. So focus on  
18 that is important.

19 I think project management and transparent performance  
20 metrics is also important. Understanding where you are, what's hanging you  
21 up, what's not, how are you meeting what you're expecting to do under these  
22 new efficient and predictable licensing schedules is important. And being able  
23 to rapidly disposition those things that are of low safety-significance is really key  
24 and having efficient decision-making process.

25 Efficiency requires be able to make a decision quickly



1 sometimes. Sometimes it's not always the best -- the favored decision, but  
2 leadership is going to have to step in and drive those decisions to conclusion in  
3 a timely manner.

4 CHAIRMAN WRIGHT: I want to ask you one other question  
5 based on something you said earlier. I want to kind of explore it in the last  
6 minute we have here.

7 On one of your slides you had the circle and you had the little  
8 orange part of it that was licensing, right?

9 MR. TRUE: Yes.

10 CHAIRMAN WRIGHT: And it was 21 percent. That was what  
11 I think you had in that. But then you made the comment that that was going to  
12 expand by a factor of two, right, potentially. I kind of would -- I don't know,  
13 sometimes percentages mean one thing but numbers mean another. Can you  
14 tell me what that 21 percent reflects in numbers and what that -- when you say  
15 a factor two what is the potential number we might be looking at, right? And I  
16 mean, because we --

17 MR. TRUE: Well, so, yes, let me be careful here because the  
18 21 percent includes a lot of different things. The factor of two comes from the  
19 survey we did that showed -- as compared to the past we expect twice as many  
20 of the -- what I would consider large applications, not just a single tech spec  
21 change or some narrow license amendment, but things like license renewals,  
22 power uprates that require extensive review, oftentimes environmental  
23 assessments. So it cuts across the agency. And we see -- I think that in the  
24 data we presented it was about a factor of two increase in just those. And that  
25 was not counting the new reactor applications that could be coming along with

1 that.

2 CHAIRMAN WRIGHT: Okay. Thank you for that. My time is  
3 expired, so the next up is Commissioner Caputo.

4 COMMISSIONER CAPUTO: Good morning. Thank you all  
5 for making time to be here. And to Bill and Katy, thank you for making the time  
6 to turn in and make your contributions this morning. As always, you've given us  
7 a lot to think about and I really appreciate your remarks.

8 Doug, thank you once again for making a data-driven case for  
9 modernizing the ROP to account for improvement in the industry's safety  
10 performance. I have long believed that a top-to-bottom review is overdue and I  
11 am eager to see the data-driven outcome of the staff's efforts and the resulting  
12 efficiency gains.

13 Doug, you also mentioned opportunities under the ADVANCE  
14 Act in the areas of efficient predictable licensing schedules and efficient  
15 decision-making processes. As you know, the current proposed rule for Part 53  
16 includes requirements for PRAs and establishing comprehensive risk metrics  
17 and has -- the Commission has directed the staff to include a PRA requirement  
18 for Part 50 operating licenses.

19 While PRA is valuable as a tool to risk-inform decision-making  
20 and has been encouraged under Commission policy for the purposes of  
21 reducing unnecessary conservatisms, I believe it's cumbersome for the purpose  
22 of a risk-based regulatory compliance. While PRA is simple in concept, an  
23 actual PRA involves many assumptions, estimates, and treatment of  
24 uncertainties likely engendering debate about the accuracy of each facet to  
25 verify compliance.

1                   The agency and the industry already struggle with this  
2   dynamic on a much smaller scale in the significance determination process for  
3   reactor inspector findings where debates between licensees and staff often  
4   continue over differences between the agency's computer model versus the  
5   licensee's site-specific model leading to delays in determining the risk  
6   significance of a finding. You commented earlier on the need to improve realism  
7   in this process.

8                   So, Doug, I just want to ask you sort of a broad question. Do  
9   you have concerns regarding the time it will take applicants and the NRC staff  
10   to debate the accuracy of assumptions and calculations in PRAs? Given the  
11   number of different designs that we will be looking at, how do you think that will  
12   affect licensing schedules, decision-making, the adjudicatory process? What  
13   safety benefit do we actually get out of what I expect will be a fairly  
14   cumbersome process just in licensing, but also an ongoing licensing exercise to  
15   maintain these documents to meet regulatory requirements and updating and  
16   maintaining them accordingly? Can you just sort of talk broadly about that for a  
17   few minutes?

18                  MR. TRUE: Yes, well, you hit a geyser here. So as you  
19   know, I spent about 40 years of my career leading an organization that did PRA  
20   for the industry and played a major role in the development of what's now called  
21   the risk-informed regulation as part of that. And I'm very proud of the safety  
22   improvements that we found in doing those studies. Every study I ever did we  
23   found a way -- that personally I was involved in -- we found ways to make plants  
24   safer. So PRAs are a very valuable tool. There's no doubt about that.

25                  I believe that understanding the risks of new designs in

1 important. I don't know that a detailed ASME standard PRA should be required  
2 for every single design. And as you may know, in our comments on Part 53  
3 that were just submitted a few weeks ago we identified that we think that the  
4 Part 53 is too lashed to a risk-based, sort of risk-founded approach, and in fact  
5 we'd be better served by using PRA, enabling the use of PRA and other  
6 different methods.

7                   If someone wants to go down a path of using PRA as the  
8 basis for their licensing basis, that's fine. There's a mechanism to do that. I  
9 think it could raise a number of the issues that you have pointed out in terms of  
10 understanding all of the inputs and assumptions that go into those studies. But  
11 also to tie back to Bill Magwood's comments, that's not really the way the rest of  
12 the world is looking at this either. And if we're going to license these plants and  
13 we want to export them, we need methods that are more akin to the way that  
14 we -- the rest of the world does it, which might be -- involve using more  
15 traditional methods, even enabling the IAEA methods for defense-in-depth  
16 where a PRA plays a role but is not the primary basis.

17                   So I think in our comments we moved in the direction of  
18 suggesting that a requirement for a singular comprehensive risk metric may not  
19 be the best approach. A risk-informed approach more like what we've done  
20 with the current fleet is a better use, where you use risk information, not  
21 necessarily a detailed PRA to tell you the answer, along with deterministic  
22 methods to get you to the answer.

23                   COMMISSIONER CAPUTO: Thank you.

24                   Nader, the proposals in last year's staff paper on microreactor  
25 licensing which were included in the proposed Part 53 rule would seem to

1     require issuing one license to fuel and test a microreactor out-of-factory,  
2     another one to transport it to a site, a different license to operate it at that site,  
3     and another license to transport it back to a refueling or decommissioning  
4     center, et cetera.

5                     Under the Atomic Energy Act and NRC regulations the  
6     Advisory Committee on Reactor Safeguards must review and report on each of  
7     these applications for licenses. The ACRS however is limited to meeting about  
8     10 times a year with 40 Subcommittee meetings.

9                     Can you give us a sense of how many microreactors  
10    Westinghouse alone would be contemplating producing in the next few years?

11                    MR. MAMISH: Thank you for the question, Commissioner.  
12    Westinghouse's deployment model is looking at tens of microreactors in the  
13    next few years, so --

14                    COMMISSIONER CAPUTO: Per year?

15                    MR. MAMISH: Yes, it's not going to be single digits. We  
16    might start with one or two, but our clients have indicated that there will be  
17    double-digit numbers.

18                    COMMISSIONER CAPUTO: Okay. Nader or Doug, do you  
19    have recommendations on how to streamline this process to reduce the number  
20    of regulatory decisions necessary to make this business model effective and  
21    efficient?

22                    MR. MAMISH: I can take that. As I indicated in my remarks,  
23    Commissioner, I think the idea that you're going to license these microreactors  
24    one at a time is just not consistent with the ADVANCE Act and it's not  
25    consistent with the deployment models that many companies, not just

1 Westinghouse, is looking to deploy.

2 I think there needs to be a mechanism to conduct efficient  
3 licensing. One way to do that is through general licenses, issuance of general  
4 licenses. Another way to do it is through putting together some bounding  
5 conditions. And you license those bounding conditions and as long as these  
6 microreactors fit within these bounding conditions, you've got a general license  
7 to basically deploy those reactors.

8 COMMISSIONER CAPUTO: Okay. Thank you.

9 Dr. Huff, appreciated your remarks on environmental reviews  
10 and for highlighting that report out of Columbia which I found very, very useful.

11 You brought up a recommendation for the use of  
12 environmental assessments for microreactor deployments. However, for review  
13 and approval of transportation routes for irradiated fuel we don't use  
14 environmental assessments. We use categorical exclusions. Would this  
15 perhaps be a better option for microreactor deployments?

16 (No audible response.)

17 COMMISSIONER CAPUTO: Oh, you're on mute.

18 DR. HUFF: Testing, testing.

19 COMMISSIONER CAPUTO: Yes.

20 DR. HUFF: Testing. Okay. It seems to just have a little bit of  
21 a lag.

22 Okay. I think it's an excellent question. My experience  
23 between (audio interference) --

24 COMMISSIONER CAPUTO: Sorry, Katy, you're breaking up.

25 DR. HUFF: They warned me I'd have -- I'm switching

1 microphones. Hopefully that changes it.

2 COMMISSIONER CAPUTO: Loud and clear.

3 DR. HUFF: Fantastic. My experience between categorical  
4 exclusions and environmental assessments is pretty minimal. I think it does  
5 seem to indicate the categorical exclusions may be a bridge too far in terms of  
6 transition from an EIS all the way down to a categorical exclusion for some of  
7 the technologies we're dealing with.

8 But you raised the question of microreactors and I think when  
9 we think about the kind of philosophy around the bounding licenses that Nader  
10 mentioned, I think one could imagine categorical exclusions for certain bounded  
11 cases for microreactors, but I don't think it's clear to me that that would be a  
12 slam dunk with the public and public trust.

13 COMMISSIONER CAPUTO: Okay. Thank you.

14 CHAIRMAN WRIGHT: Thank you, Commissioner Caputo.

15 Commissioner Hanson?

16 COMMISSIONER HANSON: Thank you, Mr. Chairman. And  
17 let me just associate myself with a number of comments that have been made  
18 this morning congratulating you in becoming Chair. And while some of the  
19 seats have changed up here on the Commission and while the mission  
20 statement has been revised, the fundamentals around our safety and security  
21 mission have not, and I look forward to working with you and the rest of my  
22 colleagues to implement that, so --

23 CHAIRMAN WRIGHT: Thank you.

24 COMMISSIONER HANSON: Thank you very much. I guess  
25 I'd like to just -- I've got a number of questions this morning, but I want to touch

1 on something that I think Doug as well as Bill touched on, and I just would like  
2 to kind of put an extra point on it if we can.

3 And let me just kind of go around and ask if all of you could  
4 kind of weigh in on the importance of having an independent regulator who,  
5 when it's acting in its core safety and security mission, is able to make  
6 decisions kind of free from political interference, and that that's true anywhere, I  
7 think, in the globe. Anybody can go first.

8 MR. MAMISH: I can go first. For the industry to thrive and  
9 really fulfill the mandates of the ADVANCE Act, you've got to have a trusted  
10 industry and a trusted regulator. It takes two to tango, and that regulator has  
11 got to be independent from the rest of the executive branch and has to make  
12 independent decisions that are founded on safety and environmental sound  
13 findings.

14 MR. TRUE: Yeah, I mean, I agree with --

15 MR. MAGWOOD: I'll jump in. Oh, I'm sorry.

16 MR. TRUE: Go ahead, Bill.

17 MR. MAGWOOD: No, sorry about that. I was just going to  
18 jump in and say that, you know, I think, Commissioner, we've learned the hard  
19 lessons the hard way. I don't know why this question would even really  
20 seriously come up. I recognize that it does.

21 I was just in the Philippines and there's actually an ongoing  
22 discussion about how to structure their regulatory organization. We certainly  
23 saw in our Japanese colleagues when the old regulator, NISA, was under the  
24 influence of a ministry whose job it was to promote nuclear energy.

25 Despite, I think, good faith efforts by the staff, it was very,



1 very clear that the culture was captured by other priorities than safety, and we  
2 don't need to learn those lessons again in my view. I think we learned them the  
3 hard way and our Japanese colleagues have worked extraordinarily hard to  
4 build the NRA into an independent regulator that's completely divorced from  
5 those topics.

6 But I think that those are lessons that everyone should absorb  
7 and understand because if the regulatory, if the regulator is not independent,  
8 there will be problems, I promise you that, and secondly, to pick up on a point  
9 that really echoes something Katie said a few minutes ago, from a public  
10 stakeholder engagement standpoint, the trust factor is very, very low, so I think  
11 there's lots of reasons why an independent regulator is important.

12 MR. TRUE: Yeah, I mean, I included it and added it to my  
13 opening remarks with intent because I think it is important, and while the  
14 industry takes its responsibility, ultimate responsibility for the safety of reactors  
15 and other facilities in the industry very seriously, the NRC's oversight and  
16 confirmation of that is extremely important with the public and on the global  
17 stage, and we can't understate the role that if the U.S. wants to be a leader in  
18 energy globally, having a strong independent regulator is a great source of  
19 motivation for that.

20 DR. HUFF: I'll agree with everything everyone has said. I will  
21 say the role of the Department of Energy, for example, is to advocate, and so,  
22 you know, having a separate DOE and NRC -- part of the forming of the NRC  
23 was specifically to ensure the independence between that advocate for the  
24 expanded safety use of nuclear power and research and development to  
25 expand it from this sort of regulation and safety of that safe use, and I think that

1 has to be maintained for trust to continue, not just domestically, but as was  
2 already mentioned, internationally. IAEA basically requires it in order to  
3 recognize the, you know, validity of a regulator.

4 COMMISSIONER HANSON: Great, thank you all very, very  
5 much for that. I think we've heard a lot this morning about, you know,  
6 recognition of things that are already going on in the agency and the recognition  
7 of where we can kind of tackle additional challenges on specific things with  
8 regard to the ROP, and your data rich presentation on that, Doug, is very much  
9 appreciated.

10 And I think there's -- you know, as we talk about the  
11 ADVANCE Act and the implementation, we talk a lot about the expectations on  
12 the NRC staff and how we go about making decisions and so on and so forth,  
13 and we can certainly get into some of the particulars around that, but I'd like to  
14 just kind of take a step back because some of these, I think, expectations that  
15 are out there, and whether they're expressed in that legislation or whether  
16 they're kind of set by the Commission, et cetera, there are expectations for the  
17 staff, but I think there are also expectations out there in the world on the  
18 Commission itself.

19 And I would just like to kind of hear from anybody who'd like  
20 to weigh in about what those expectations are on the Commission, that it's not  
21 just about changes that we want the staff to make, although those are super  
22 important and things that the staff can and should be doing, but there are also --  
23 there's a particular role, as you all well know, for the Commission itself, and I  
24 just wanted to give you an opportunity to perhaps share some of those, you  
25 know, with the five of us.

1 MR. TRUE: I'll jump in. I think that, you know, I think the  
2 Commission is distinct from the staff, but certainly, and I tried to mention this in  
3 my opening remarks also, the Commission has an important role to model what  
4 they expect the staff to do. So, efficient decision-making, collegial engagement,  
5 productive moving forward of issues is all things that fall equally, in my opinion,  
6 on the Commission as it does on the staff.

7 And we've had a lot of issues that have languished for a time.  
8 If something -- like everybody agrees there's no safety significance to non-  
9 emergency reporting, and how long have we been waiting for that to move  
10 forward? I mean, I'm sorry, but come on, guys and gals. Let's move forward  
11 here.

12 We could be on an eight-year journey to do something that  
13 we all agreed to many years ago was the right thing to do to put the right focus  
14 on things that are more important than non-emergency reports that are  
15 unnecessary in a modern age.

16 So, I don't want to belabor that point, but I'm just the poster  
17 child maybe of this topic. So, yeah, I think it falls to the Commission too, to  
18 model that and make decisions that ultimately lead to the Commission being  
19 more efficient. I think the ADVANCE Act doesn't apply just to the staff.

20 I think it applies to the Commission and the decisions you all  
21 come out with on how to go forward to the Hill with responses and  
22 recommendations, or reports, or whatever comes out of the various sections  
23 are going to be important, and I think you should be held accountable if you're  
24 not moving in the direction of efficiency.

25 COMMISSIONER HANSON: Okay, well, thank you. I think

1 we've gotten some good things done on the Commission, but like the staff, I  
2 think there's always more to be done and I look forward to moving ahead on  
3 that, so thank you for those remarks.

4 I've got just about a minute left and I'm going to let anybody  
5 jump in on this one too. I think one of the sleeper provisions of the ADVANCE  
6 Act, the one that -- you know, there's a lot of emphasis on efficiency and  
7 certainly fairly going forward, but I think one of the sleeper provisions is actually  
8 having to do with foreign ownership, control, and domination that maybe doesn't  
9 get talked about very much.

10 And I guess I'm interested in, you know, either Nader, or  
11 Doug, or Bill, or others about the importance of that provision, particularly as it  
12 opens the aperture potentially for investment in the United States by our friends  
13 and allies in the nuclear sector.

14 MR. MAMISH: I'll take a quick stab at it. Thank you,  
15 Commissioner, for that question. Westinghouse staff has been heavily  
16 engaged with NRR on the foreign ownership matter because of the nature of  
17 our global company, and I'm delighted to say that the working relationship and  
18 the cooperation, collaboration on that specific issue has been exceptional.

19 So, we have talked about the need to open the aperture a  
20 little bit. We're getting ready to send a letter to the staff in that specific regard,  
21 and I believe that OGC, our legal folks will be engaging with OGC as well on the  
22 issue, so it's going very well.

23 COMMISSIONER HANSON: Great.

24 MR. TRUE: Not to add a lot, I think it was an important  
25 provision also. I think we ran into this back in the early 2000s, and this was

1 good to get it out of the way now as we hit this inflection point so we're not  
2 scrambling to try and deal with it later, so I think it's a step in the right direction,  
3 definitely.

4 COMMISSIONER HANSON: Great. Bill, any thoughts?

5 MR. MAGWOOD: Yeah, just very briefly, I agree with Nader  
6 and Doug on this, but I also think it's important that the Commission develop  
7 some kind of guidelines and process to how you will make decisions on foreign  
8 ownership going forward. It actually makes your job more complicated because  
9 you now just can't say no foreign ownership with this provision. You now have  
10 to have criteria.

11 And certainly, there have been times where I've thought that  
12 close U.S. allies like, you know, UK, Japan, and others can't have an ownership  
13 role in nuclear power plants is kind of silly, but where do you draw the line?  
14 And that, I think, is less clear to me at this moment and that's something the  
15 Commission will have to work on.

16 COMMISSIONER HANSON: Okay, well, thank you all very,  
17 very much, and thank you, Mr. Chairman.

18 CHAIRMAN WRIGHT: Thank you, Commissioner Hanson.  
19 Commissioner Crowell?

20 COMMISSIONER CROWELL: Thank you, Mr. Chairman, and  
21 thank you to all of the panelists today. Let me just start with an official, on the  
22 record congratulations to Chairman Wright on his designation. I look forward to  
23 working with him and my colleagues going forward.

24 As I sit here today, I'm also reflecting on the difference in this  
25 conversation from when we had originally scheduled this meeting about six

1 weeks ago until now. It seems like it was six years ago. It's been a long few  
2 weeks and much has changed, and a lot of that change is, you know, the NRC  
3 is experiencing that change as well.

4 Director-General Magwood, I'm going to start with you, and  
5 first, I'm sorry I missed you recently at your headquarters, but I very much  
6 appreciated the briefing I received from your staff in the very room that you're  
7 speaking to us from today. You've been in this game for a while, you know, at  
8 DOE, at NRC, at NEA, and as you said, you gave birth to a lab that focuses on  
9 nuclear, so you've seen the prior what we hoped were going to be renaissance.  
10 What makes this different given your experience? Why do you think this is  
11 going to be different and that the renaissance is actually going to be realized?

12 MR. MAGWOOD: I appreciate that question, Commissioner.  
13 Yes, I have been around a long time.

14 COMMISSIONER CROWELL: But you look great.

15 (Laughter.)

16 MR. MAGWOOD: Thank you, thank you, thank you for that.  
17 You know, the real difference is that in the last go around of the nuclear  
18 renaissance, there were -- the people who were driving that were not  
19 necessarily the users. I think it was much more supply side driven as opposed  
20 to demand side driven. What I see now is a very broad, very deep need for  
21 nuclear energy around the world. It really is everywhere.

22 As I mentioned, I was just visiting Manila in the Philippines  
23 talking to ministers in that country, and they highlighted the fact that they are, A,  
24 very worried about climate change, it's something that's very present in their  
25 minds, and B, very worried about energy security.

1                   And when they look at all of the options, nothing satisfies  
2 those concerns more than nuclear energy, and the fact that there is now  
3 technologies coming to the market that are much more accessible to countries  
4 like that makes it almost an obvious choice for them.

5                   So, I think that this is very, very different from the last time. I  
6 think that the opportunities are very broad, and I think this is not just in a few  
7 places. I think this is really a global phenomenon and it really is demand  
8 driven, and I think that's the biggest difference from the last time.

9                   COMMISSIONER CROWELL: I appreciate that, and I  
10 obviously hope you're correct and we're able to do it, you know, in a  
11 cooperative way. One theme we've seen from the new administration here in  
12 the U.S. is a move away from engaging with international organizations. If that  
13 were to happen with, say, NEA or IAEA, what would the impact be?

14                  MR. MAGWOOD: Well, obviously that would be devastating  
15 in lots of ways, and I should say I have not had any reason to believe that is the  
16 direction that things will go.

17                  I recognize that there is much more of a focus on domestic  
18 issues as opposed to international ones, but as I said earlier, U.S. interests  
19 really depend on having access to markets and having the ability to influence,  
20 you know, decisions made overseas to accept U.S. technologies, and you can't  
21 do that if you don't leave your national borders.

22                  So, I continue to believe that there's going to be a very strong  
23 role for international organizations, particularly those that are comprised of like-  
24 minded countries, and I remain confident that we'll be able to provide value to  
25 our U.S. colleagues as things go forward.

1 COMMISSIONER CROWELL: Thank you. Dr. Huff, if I may  
2 turn to you, thanks for joining us today. I'm sorry that you have to be with us  
3 virtually and that we missed you in person the last time.

4 I found your presentation insightful. As a general matter, I  
5 think we have a rebalancing to do at the NRC, because right now, we're in a  
6 dynamic of our environmental reviews taking longer than our safety reviews,  
7 which seems a little upside-down on its face. So, I'm a big supporter of finding  
8 ways to bring those back into alignment.

9 I think only in very rare cases should the environmental  
10 review take longer than the safety review, and so, you know, between the FRA  
11 and other efficiencies we can find, we need to seize those, but I also agree with  
12 you that we don't want to move, you know, overnight from an EIS to a CATEX  
13 because of the impact that may have, particularly on the social license related  
14 to commercial nuclear power.

15 So, you know, that being said, I kind of want your expert  
16 opinion here on how much the environmental reviews by the NRC can be  
17 impacted by first-of-a-kind versus nth-of-a-kind technologies, whether site  
18 selection, you know, smart site selection is the most important thing in keeping  
19 a timely, you know, in achieving a timely environmental review, and also maybe  
20 how the quality of the submission by the applicant factors into the timeliness of  
21 the environmental review. If you could touch on those, I'd much appreciate it.

22 DR. HUFF: Thank you very much. I really appreciate -- oh,  
23 come on, okay, yeah, there. Thank you very much. I completely agree. I think  
24 it's the social license at the heart of all of this. You've mentioned sites.

25 I think that really is an area where efficiencies can be



1 realized, especially in a scenario in which there's a coal to nuclear transition  
2 where retiring and retired coal plants specifically called out in the ADVANCE  
3 Act are an opportunity for a nuclear power plant's presence to clean up the  
4 environment, to reduce the impacts on the local community in terms of health.

5 So, my expectation is that that work, working on a coal to  
6 nuclear transition, working on siting and comparisons between nuclear energy  
7 and coal with regards to environmental impacts will have an impact.

8 COMMISSIONER CROWELL: Thank you. Mr. True, let me  
9 turn to you next. I appreciate your presentation on the ROP. At a macro level, I  
10 think what your slides demonstrate is that the ROP has worked as intended and  
11 as designed. And, you know, does that mean it's perfect? Not necessarily, but,  
12 and improvements can always be made, but the trend line from your data  
13 shows that it's moving in the right direction.

14 How would you -- where would you give credit for that? Is it  
15 because of, more so because of the regulators' action, the operators' actions, or  
16 the cooperation among the two?

17 MR. TRUE: I mean, I think it goes both ways, but I do believe  
18 the industry has expended a great deal of effort to improve its performance, and  
19 that's been reflected in things like capacity factor, and reduction in scrams, and  
20 other things that are, you know, maybe peripherally tied to ROP, but are not the  
21 centerpiece of compliance with regulations.

22 And that has been a concerted effort led by our individual  
23 utilities as well as INPO and their role in this, and that whole philosophy has  
24 carried over into the regulatory side where I think we have stepped up our game  
25 to make sure we're prepared for inspections and are in good stead, and that in

1 turn has led to reduced findings.

2 And I think that good performance should be credited as we  
3 go forward. If we see performance being to slip, then bring the inspections  
4 back, but there's no reason to be steady at a period where you've made, you  
5 know, five-fold improvement in performance of the industry or more.

6 COMMISSIONER CROWELL: Yeah, and I think your last  
7 point is important, which is if, you know, if best practices start to slip, then you  
8 do need to snap back into more enhanced oversight, and it's good to hear --

9 MR. TRUE: That's the whole point of oversight.

10 COMMISSIONER CROWELL: Yeah, in theory. Both Mr.  
11 True and Mr. Mamish, let me pose this to both of you. I heard lots of phrases  
12 from you both about moving forward, a strong independent regulator, you know,  
13 right-sizing NRC staff, fulfilling the ADVANCE Act, et cetera.

14 How -- to me, it seems like many of the things in the  
15 ADVANCE Act, giving us new tools, giving us new authorities to do things that  
16 we need to do to meet the moment and Congress directed us to in the  
17 ADVANCE Act are contrary to some of the actions writ large across the  
18 executive branch right now.

19 The ADVANCE Act is all about hiring the right kind of people  
20 and now we can't hire any people. The ADVANCE Act is about, you know,  
21 doing things better and smarter, and that's tough to do when you're losing more  
22 people than you're able to bring in, and it certainly doesn't foster a culture that  
23 helps us achieve those goals.

24 You know, Nader, you represent industry. Doug, your NEI  
25 represents industry. How do you, from your respective chairs, see this contrast

1 between current direction from the administration and what the ADVANCE Act  
2 says? They seem to be going in opposite directions.

3 MR. TRUE: I'll start by saying I'm hopeful that this is a  
4 transient condition, that we are, you know, working our way through the first 45  
5 days or so of an administration, and as we settle out, we'll begin to see what the  
6 future really holds in these areas.

7 As an agency that's funded by the industry, you know, we feel  
8 like we pay for a lot of the resources here at the NRC. Ninety percent or so of  
9 those resources come from the fees we pay.

10 So, and we have made clear in a letter we sent to you, and  
11 letters and interactions with other parts of the administration, that we need to be  
12 mindful that the NRC be staffed adequately and with the right resources, and  
13 we'll continue to advocate to make sure because, you know, we'd like to have  
14 power uprates happen, we'd like to have plant license renewals happen, and if  
15 there aren't staff sufficient here to do that, that's going to be a problem for the  
16 industry as well, so.

17 COMMISSIONER CROWELL: Okay, thanks, and I'm over  
18 time, so, Nader, I'm going to let you off the hook, which you'll probably  
19 appreciate.

20 (Laughter.)

21 COMMISSIONER CROWELL: Thank you, Mr. Chairman.

22 CHAIRMAN WRIGHT: Thank you, Commissioner Crowell.  
23 Commissioner Marzano?

24 COMMISSIONER MARZANO: Thank you, Mr. Chairman,  
25 and I want to join my colleagues in congratulating you on your chairmanship

1 and being appointed there, so congratulations.

2 Good morning, everyone. Thank you for the presentations.  
3 Dr. Huff, I had hoped to welcome you back to the DMV, but I'm sure, as you're  
4 well-familiar with, the challenges that winter weather can bring to this area,  
5 especially compared to central Illinois, so I digress.

6 The ADVANCE Act represents a broad recognition of the  
7 need to reestablish the United States' leadership in nuclear energy  
8 development, with a focus on the vital role of the NRC in enabling the safe and  
9 secure use of nuclear technology and radioactive materials.

10 The provisions in the ADVANCE Act constitute a  
11 comprehensive strategy that aims to improve the readiness of the NRC to  
12 execute its statutory authorities, responsive to the innovations and  
13 advancements in nuclear technologies.

14 As you've touched upon in each of your presentations, the  
15 ADVANCE Act calls for the NRC to ensure that the licensing regulation of the  
16 civilian use of radioactive materials and nuclear energy be conducted in a  
17 manner that is efficient and does not unnecessarily limit their uses in  
18 deployment.

19 Efficiency has always been a pillar of the NRC's work and our  
20 values as prescribed in the Principles of Good Regulation for over 30 years,  
21 and so I appreciate Director Magwood's comment that, you know, the  
22 ADVANCE Act essentially restates what is already within the NRC's remit and  
23 authority, so I appreciate that recognition.

24 Meeting our growing workload and securing our nation's  
25 energy future requires a renewed focus on how to incorporate efficiency in the

1 work we do and our culture. That being said, while the ADVANCE Act directs  
2 the NRC to incorporate greater efficiencies into activities, the ADVANCE Act  
3 also restates and reaffirms the NRC's half century-long role as an independent  
4 safety regulator.

5 So, we asked you all here today because the input that we  
6 receive from you, our external stakeholders, is fundamental to the NRC  
7 conducting its regulatory functions in a way that is responsive to the needs of  
8 the nuclear community and the public.

9 As we endeavor to implement the ADVANCE Act, it is  
10 incumbent upon us to look to our stakeholders and the broader public as we  
11 prepare for the next phase of nuclear innovation. Your continued engagement  
12 will help advance the nation's energy goals and realize the benefits that safe  
13 use of nuclear technology can deliver to society.

14 All right, stepping off my soapbox, I think I want to start with  
15 you, Director Magwood. Again, I appreciate your perspectives here, and  
16 especially your remarks on the NRC and how it relates to global leadership in  
17 nuclear energy, and the ADVANCE Act recognizes this, the crucial role that the  
18 NRC plays in maintaining and enhancing U.S.-international leadership in the  
19 safe development, deployment, and regulation of nuclear technology.

20 So, to that point, hopefully we get a chance to get your  
21 thoughts on opportunities that you see for the United States and the NRC to  
22 collaborate with other countries and intergovernmental organizations such as  
23 the Nuclear Energy Agency in developing approaches to regulating new nuclear  
24 technologies.

25 MR. MAGWOOD: Thank you for that question,

1 Commissioner, and again, welcome. I hope you're enjoying your tenure thus  
2 far on the Commission.

3                   You know, I think that there's opportunities in many places,  
4 but I do believe that something I mentioned earlier is very relevant, and that is  
5 for small modular reactors to really be successful, we have to build them in  
6 considerable numbers.

7                   As Nader pointed out in his comments on the microreactors,  
8 that Westinghouse anticipates building tens of microreactors. I think most of  
9 the small modular reactor vendors have an aspiration to build tens of SMRs,  
10 and I don't believe that they expect that all of these will be built in one country.

11                   They don't expect to build them all in the United States. So, if  
12 these reactor are going to be built in multiple countries in a relatively short  
13 period of time, that's going to require a coordination among regulators on  
14 licensing unlike anything we have seen in the past.

15                   The NRC has taken very important first steps under, you  
16 know, previous Chairs Svinicki and Hanson, to advance cooperation on a  
17 bilateral basis with close countries, but we have to go to the next step.

18                   We have to go multilateral and that's where I think an  
19 organization like the NEA could be helpful, but it really, again, can't happen  
20 unless there is a driving desire by the NRC and like-minded regulators to do it.

21                   For what it's worth, I have had very substantive conversations  
22 with ministers in various countries, and they recognize there's a need to deal  
23 with this and they would like to deal with it, and so we're hoping to be able to  
24 facilitate this, to make this happen, but I think that's the biggest opportunity, to  
25 create that global market for SMR technologies, and it won't be an easy thing to

1 do, but I do think it's absolutely within our grasp.

2 COMMISSIONER MARZANO: Yeah, and thank you for that.

3 I completely agree. I think when it comes to our international engagement, you  
4 mentioned also having a whole-of-government approach here, and that's really  
5 what's needed to kind of put all of the pieces that we need to generate  
6 investment overseas for U.S. technologies, so thank you for that statement.

7 Doug, I appreciate your time today. I was hoping we could  
8 get slide three of your presentation up? I appreciate your comments on the  
9 NRC's reactor oversight program. You know, as you've kind of shown in your  
10 slides, there's been tremendous improvement in the safety performance of  
11 operating reactors over the last 20 years.

12 And I know very well that this safety record and high level of  
13 performance was achieved because of the combined efforts of NRC staff  
14 executing our licensing and oversight functions every day and industry  
15 professionals who maintain high standards for safety in the plants they support  
16 every day.

17 That said, the ADVANCE Act compels us to revisit our  
18 approach to oversight and deliver a more efficient and, excuse me, effective  
19 ROP. Expectations for the deployment of new technologies, as we've heard  
20 here, and the increase in the number of operating reactors requires us to grow  
21 and adapt our oversight program in response to a rapidly evolving technology  
22 landscape.

23 So, you know, I don't necessarily believe that the NRC staff or  
24 industry professionals are content with resting on our laurels. We should all  
25 applaud the culture of continuous improvement that has produced these results

1 that you saw on that slide, and there are far fewer greater than green findings  
2 today compared to 20 years ago.

3 And I also observed though, you know, one thing that I did  
4 want to kind of touch on in that data, that although the number of findings has  
5 declined, we still are at about 80 percent of those being self-revealing, and that  
6 suggests to me that there's obviously still room for the NRC and the industry to  
7 improve in how we detect and disposition issues throughout the fleet.

8 So, my question here is as we're reevaluating the NRC's  
9 ROP, how can licensees and the NRC work together to identify these potential  
10 safety issues before they become self-revealing? How do we work on that  
11 problem?

12 MR. TRUE: I mean, I think that -- well, I look at it from the  
13 industry perspective that industry is driven to excellence by INPO, and we strive  
14 every day, as you know from having been in a plant, for that goal of excellence.  
15 I mean, it's so ingrained in the INPO process that they didn't even finish the  
16 final E of excellence in the stone in some plaque in the lobby, that you're never  
17 done on that journey.

18 So, I think there's always going to be a set of these. I would  
19 be more concerned if we were having regional inspectors and resident  
20 inspectors finding lots of problems on their own and the majority was flipped the  
21 other way. You know, humans make mistakes.

22 Many of these self-revealing, I can think back to the specifics  
23 where they were in security or in operations were due to human performance  
24 errors, so we continue to strive towards higher human performance, but I'm not  
25 saying we shouldn't look at things that are greater than green.



1                   If they're greater than green, they deserve to be evaluated,  
2     and the NRC should understand them, and we should make sure we're getting  
3     to the right root cause corrections, but I don't think we get there by necessarily  
4     changing our oversight process to make that happen either.

5                   COMMISSIONER MARZANO: Thank you for that. I  
6     appreciate it, and yeah, I'm familiar with how human performance and the  
7     importance of it factors into safe operation of plants across the country, so  
8     thank you.

9                   Not much time left, but I did want to get one question in for Dr.  
10    Huff. I appreciate, you know, highlighting some of those recommendations for  
11    environmental reviews as we work to enhance our processes, especially in light  
12    of the Fiscal Responsibility Act.

13                  So, we are -- we have several efforts ongoing, including the  
14    generic environmental impact statement for new reactors, simplifying the NEPA  
15    process as appropriate for the Kaires, or sorry, excuse me, I just combined  
16    those words there, Kairos Power Hermes 2 construction permit by using  
17    environmental assessment in lieu of an environmental impact statement.

18                  And then we also have utilized previously published  
19    documents to capture efficiencies in environmental reviews for the Turkey Point  
20    and North Anna license extension applications. So, Nader, to your point about,  
21    you know, building on past work, I think that that's an important efficiency that  
22    we can gain.

23                  So, Dr. Huff, to that end, you highlighted again some other  
24    recommendations. What areas do you think that the NRC staff should prioritize  
25    as we're working towards improved environmental review efficiencies in the

1 recommendations that you shared today?

2 DR. HUFF: Thank you very much. I think that the most  
3 interesting table in this whole report by Matt Bowen is in the appendix, Table  
4 A1, and it's sort of an assessment by NRC staff of which of the resource  
5 categories had the most environmental impact in the various environmental  
6 assessments for Vogtle 3 and 4, for Fermi, for V.C. Summer, and for Levy 1  
7 and 2.

8 Some of the ones that were sort of by and large small  
9 environmental impacts for every review that were done was, you know, the  
10 economic impacts to the community were either small, or moderately beneficial,  
11 or largely beneficial, so they were all beneficial. So, reviewing them and  
12 continuing to look for downsize may not be appropriate or a good use of time.

13 Resource categories associated with air quality, non-  
14 radiological health, and radiological health were all also always small in these  
15 reports, and so I think these are areas where, you know, yes, we must continue  
16 to assess radiological health, but perhaps former assessment can be drawn  
17 upon to avoid replication of work given how small all of the assessments have  
18 been so far.

19 Those are the ones that I would highlight the most. Site and  
20 vicinity also typically is small, though there are a couple of cases of moderate  
21 environmental impact that would be worth taking a look at.

22 COMMISSIONER MARZANO: Thank you, Dr. Huff, and I am  
23 well over my time, but I did want to just acknowledge kind of a common thing  
24 that I've heard from the panelists here, and that's how we maintain our public  
25 license. Again, I think that's an effort by both the NRC and the industry working

1 together, and we should keep that focus in mind as we're trying to tease out the  
2 efficiencies. So, with that, I'm done.

3 (Laughter.)

4 CHAIRMAN WRIGHT: Thank you, Commissioner Marzano,  
5 and thank you again to our external panel. I really appreciate the conversation,  
6 both from the two of you here in the room and the two online, and we look  
7 forward to taking a break here now for, let's say let's come back, what do you  
8 think, 20 'til, about 20 'til, and then we'll reconvene with the staff panel. Thank  
9 you so much.

10 (Whereupon, the above-entitled matter went off the record at  
11 10:32 a.m. and resumed at 10:42 a.m.)

12 CHAIRMAN WRIGHT: We'll call the meeting back. Good  
13 morning, again. Our next panel will be kicked off by the NRC's Executive  
14 Director of Operations, Mirela Gavrilas. Mirela, the floor is yours.

15 MS. GAVRILAS: Good morning, Chairman, Commissioners.  
16 Behind the people at this table, there is a wonderful ADVANCE Act team. We  
17 actually have some alums already.

18 But most importantly, there is the enthusiasm and credibility  
19 of very many of our staff, who not only contributed their own ideas, but who  
20 listened carefully to our external stakeholders and incorporated their thoughts  
21 and recommendations into our products.

22 The one current area of focus that you will not hear a lot  
23 about today is our new mission statement implementation, because most of the  
24 progress we made was in the last six weeks or so since this meeting was  
25 rescheduled. However, we will address the mission statement in-depth in a

1 public meeting next Thursday after the regulatory information conference. And  
2 with this, I am passing the microphone to Mike, the mic to Mike, who will give an  
3 overview of our efforts and introduce the panelists. Thank you.

4 MR. KING: Thank you, Mirela. Good morning, Chairman and  
5 Commissioners. It's been a busy eight months since the enactment of the Act.  
6 We have made progress in addressing the requirements and taking actions  
7 consistent with the spirit of the Act through open and transparent  
8 communications, engaging our stakeholders to discover innovative ideas,  
9 delivering on the early milestones, and establishing mechanisms to monitor our  
10 impact.

11 I will touch on our progress in each of those areas, and  
12 together with my colleagues on the panel, we'll highlight some of the activities  
13 we're undertaking across the agency to implement the Act. We're not only  
14 taking actions to address the activities specified by the Act, but also  
15 implementing actions consistent with the spirit of the Act, and moving forward  
16 without process delays wherever possible so we can reap early benefits.

17 For example, the Office of Nuclear Reactor Regulation or  
18 NRR recently issued a revision to the inspection manual chapter for the light  
19 water reactor inspection program to provide clear expectations and best  
20 practices to monitor inspection technical support between headquarters and the  
21 regions. These revisions aim to ensure issues are processed in a timely  
22 manner and that low-level issues do not take up more time than what's  
23 warranted.

24 Another example is a memo NRR management recently  
25 issued to reinforce expectations for licensing efficiencies, and this came out of

1 an effort to engage external stakeholders on the NRC's review process for  
2 license amendment requests that we began before passage of the Act.

3 Michele Sampson, Director, Division of New and Renewed  
4 Licenses at NRR, to my left, will discuss this NRR memo and how it dovetails  
5 with other ADVANCE Act-related activities. Next slide, please?

6 Transparency, both internally and externally, is a key aspect  
7 of our implementation of the Act. Internally, we established a website to track  
8 our progress on the 36 actions we identified to respond to the Act. These  
9 actions have been assigned to 20 different project teams with NRC staff from  
10 across the agency who are sharing ideas across business lines.

11 The Office of the Executive Director of Operation, or OEDO,  
12 establishes clear expectations and provides guidance to the project teams,  
13 maintaining oversight and accountability for each of the taskings associated  
14 with the implementation of the Act.

15 Externally, we've launched a public website dedicated to the  
16 Act. This site includes background materials, a progress tracker for key  
17 milestones, and a list of published ADVANCE Act-related documents and  
18 reports.

19 One of the reports I'd like to highlight is the NRC's plan to  
20 implement the new special hiring compensation authorities provided by Section  
21 502 of the Act, which will be discussed in more detail later by Eric Dilworth, our  
22 Deputy Chief Human Capital Officer, seated to my far left. Next slide, please?

23 Engagement is another tenet of our implementation strategy,  
24 so we established mechanisms to solicit ideas and feedback on our internal and  
25 public web pages. To date, we've received 32 submissions from members of

1 the public and industry groups.

2 My team routinely monitors these submissions to direct them  
3 to the appropriate project teams to act on the ideas, comments, or questions.  
4 Michele will highlight an example of how this feedback helped to shape our  
5 recently issued report on advanced manufacturing and construction.

6 Similarly, our internal website has a contact us feature for  
7 NRC staff use. We've received over 100 submissions to help support the  
8 ADVANCE Act implementation.

9 As you might gather from the word cloud generated using  
10 staff idea submissions, the most popular topics were related to making the most  
11 of interactions with our licensees, improving the efficiency of our inspections  
12 and licensing reviews, and making the most effective use of our staff's time.

13 Jeremy Groom, Deputy Director of Region IV's Division of  
14 Radiological Safety and Security, seated to my left, will discuss some of these  
15 ideas and how they're shaping our assessment of the oversight and inspection  
16 programs.

17 We've received all of the early advance -- oh, next slide,  
18 please? We've achieved all of the early ADVANCE Act deliverables,  
19 completing eight of the 36 task actions so far.

20 This slide identifies and contains links to four of our early  
21 actions. The first one is a new memorandum of understanding or MOU with the  
22 Department of Energy, or DOE, to enhance technical readiness and  
23 coordination with DOE.

24 With this MOU in place, the NRC and DOE will benefit from  
25 sharing technical expertise. This will provide the NRC with access to DOE's

1 experimental data and codes, yielding efficiency gains in the licensing process  
2 for advanced nuclear fuels.

3 The last three bullets are recently issued reports. Eric will  
4 cover the report on the second bullet in more detail, Michele will address the  
5 third bullet during her remarks, and Chris Regan, seated to my immediate left,  
6 will discuss the final bullet on our efforts to modernize our environmental  
7 reviews.

8 Chris is the Director of the Division of Rulemaking,  
9 Environmental, and Financial Support in the Office of Nuclear Material Safety  
10 and Safeguards. One thing to know about reports is that they include a  
11 consistent structure to identify actions that we're already taken, actions that are  
12 currently underway, and future actions that are under consideration. Next slide,  
13 please?

14 Our work does not stop with issuing these reports. It's  
15 imperative that these changes move beyond just words in a report and become  
16 embedded in our culture to drive efficiencies are aiming for. We've identified  
17 our implementation of the ADVANCE Act as an enterprise risk for the agency to  
18 ensure accountability and to regularly assess the impact of the changes.

19 OEDO is tasking the responsible offices to implement the  
20 ADVANCE Act-related changes in a timely manner and directing them to  
21 establish metrics to monitor the effectiveness of the changes, including actions  
22 identified in the reports provided to Congress.

23 To increase transparency and achieving desired outcomes,  
24 the NRC will use new public-facing metrics to track the completion of licensing  
25 actions, inspections, and different professional views completed within schedule

1 and projected resources. We'll also monitor our success in resolving low safety  
2 significance issues within targeted timeframes.

3                   These metrics will provide us with data to adjust if we find out  
4 that the changes are not as effective as we expected or if we're having  
5 unintended outcomes. I'll now turn it over to Chris Regan. Next slide, please?

6                   MR. REGAN: Thank you, Mike. Good morning, Chairman  
7 and Commissioners. Today, I'll be sharing information we captured in the  
8 recent report to Congress on our environmental program improvement  
9 initiatives, providing an update on fuel facility licensing streamlining activities,  
10 and briefly touching on the path forward on changes to foreign ownership,  
11 control, or domination, or FOCD requirements. Next slide, please?

12                   The NRC took a comprehensive look at the whole  
13 environmental review program to identify actions to make our processes more  
14 timely, efficient, and predictable.

15                   Examples include implementing a 5,550-hour resource model,  
16 a roughly 30-percent reduction from previous estimates for operating reactor  
17 license renewal environmental reviews, and which we are measuring the  
18 current applications against to inform future model adjustments; assessing a  
19 streamlined phased approach for the licensing of microreactor technologies, to  
20 include the potential use of design certification specific generic environmental  
21 impact statements, which could result in as much as 4,000 hours in resource  
22 savings per application; developing an e-portal for microreactor application  
23 submittals that would allow for full, complete, transparent, and timely  
24 communications between all parties involved in the NRC's environmental  
25 review process; considering potential new categorical exclusions to reduce the



1 resources necessary for review of certain actions.

2                   You'll be hearing more on how we propose to further  
3 streamline environmental reviews for microreactor applications at the  
4 Commission briefing in April. Also, we're working on the new reactor generic  
5 environmental impact statement rulemaking, which if finalized, could save up to  
6 40 percent of staff's efforts per application or roughly 6,000 hours.

7                   Additionally, maximizing incorporation by reference to  
8 previous environmental studies and also the ongoing brownfield assessment  
9 per Section 206 of the Act to use existing site data and information. This  
10 assessment may identify additional savings for environmental reviews and will  
11 be further discussed by Michele shortly.

12                   We established MOUs which increase efficiency by  
13 establishing the respective roles and responsibilities of lead and cooperating  
14 agencies, as well as schedule and deliverables for environmental review. We  
15 now have MOUs with the Department of Air Force on the Eielson Air Force  
16 Base project, and DOE on projects such as the Palisades restart request and a  
17 trio of new reactor projects.

18                   In the agreement with the Department of the Air Force, they  
19 are the lead for consultation under Section 106 of the National Historic  
20 Preservation Act, which we anticipate will save roughly 50 percent of the NRC  
21 staff's effort on the consultation process. Next slide, please?

22                   The environmental review staff host roughly 25 public  
23 meetings per year or what equates to approximately one every two weeks.  
24 These meetings have reduced the risk for future issues that could impact the  
25 schedule by ensuring environmental review actions have appropriate scope and

1 adequately address technical issues.

2                   To be more transparent, we created a new public website that  
3 shares review information such as our environmental program blueprint, which  
4 serves as a roadmap to all of the activities the environmental program supports.  
5 This includes an environmental document capture and visualization tool, which  
6 can reduce staff time when searching for information in support of review  
7 activities by as much as 70 hours per project.

8                   The website also provides external stakeholders the ability to  
9 independently identify and find relevant information, which reduces the burden  
10 on the public and the NRC staff as the information is more readily available to  
11 the public without staff assistance. We encourage pre-application  
12 engagements for environmental reviews to increase timeliness and reduce  
13 overall agency resources expended.

14                  This past year, we consulted with over 200 tribes, sent over  
15 480 letters to tribes and state historic preservation officers, and led 27 tribal  
16 meetings. Engaging with tribes and state historic preservation officers during  
17 the Carbon Free Power Project, for example, helped reduce schedule risks  
18 while the review was ongoing and strengthened relationships with the tribes.

19                  For our recent Clinch River environmental assessment, staff  
20 completed tribal engagement under the Section 106 consultation process with  
21 minimal schedule risk, saving about 700 hours of staff's effort since staff were  
22 able to build off the working relationship developed with tribes and state  
23 agencies during these previous reviews. These early engagements allow staff  
24 to forge meaningful trust relationships with tribes and understand and address  
25 concerns earlier in the process.

1                   Finally, the use of virtual or hybrid meetings to supplement in-  
2 person interactions enables us to reach broader audiences and increase public  
3 engagement during the environmental review process. Next slide, please?

4                   Now, we'll share an update on a streamlined fuel facility  
5 licensing program that we initiated in 2020, fully implemented in 2023, and are  
6 continuing to build upon in response to the ADVANCE Act.

7                   Thirty-six process improvements were implemented, including  
8 revised processes for pre-application engagement, acceptance reviews, site  
9 audits, and use of precedents. Actions from this program are resulting in  
10 completing 95 percent of the actions within public schedules, a significant  
11 improvement from the 85 percent previous average.

12                  Staff is building upon these improvement initiatives as part of  
13 the Licensing Efficiencies and Processes, or LEAP team, in support of Section  
14 505 of the ADVANCE Act that Michele will elaborate shortly on for the other  
15 business lines.

16                  Industry is projecting an increase in applications for accident  
17 tolerant fuels in new reactors. Use of the streamlined program facilitated  
18 completing review of the first license amendment request to increase  
19 enrichment to 13 months, and for the most recent amendment request to  
20 increase enrichment limits in 11 months, roughly 15 percent faster.

21                  The fuel facilities business line also created a new tool to  
22 enhance visibility and accountability for major licensing reviews, starting with  
23 the TRISO-X fuel facility application. The tool provided the first public-facing  
24 source for licensing information for the business line and it has increased  
25 transparency on the status of NRC's review.

1                   The staff has since expanded the use of this approach to  
2 other major licensing reviews, including the LES increased enrichment license  
3 amendment request that piloted new features to visualize and track estimated  
4 versus expended hours and the project schedule status.

5                   Lastly, I wanted to mention the rulemaking and financial  
6 centers of expertise efforts to streamline rulemaking options for implementing  
7 Section 301 of the ADVANCE Act changes that designate certain exceptions to  
8 the foreign ownership, control, and domination prohibition.

9                   We are utilizing a smaller, more focused working group, and  
10 using lessons learned from recent rulemaking activities to facilitate shortened  
11 concurrence timeline, like minimizing review layers in the concurrence process  
12 and running reviews in parallel wherever possible.

13                   With these improvements, we expect to save at least six  
14 months over a typical schedule and to deliver the rulemaking package to the  
15 Commission by the summer of 2025. This concludes my remarks and I'll now  
16 turn it over to Michele. Thank you. Next slide, please?

17                   MS. SAMPSON:     Good morning, Chairman and  
18 Commissioners. Next slide, please? In line with Section 505 of the Act, we are  
19 implementing change across the agency to improve licensing efficiency,  
20 timeliness, and predictability.

21                   These efforts are being coordinated through the Licensing  
22 Efficiencies and Processes, or LEAP team, to ensure consistency across  
23 agency licensing programs. Over 70 percent of current power reactor licensees  
24 are interested in requesting power uprates in the coming years.

25                   Because we have extensive experience with power uprate

1 reviews, we have delegated approval from the office director to the division  
2 level, which is expected to shave weeks off of the review timeline. Moreover,  
3 we are using a graded approach to streamline the review based on safety  
4 significance. We are benchmarking against the 172 power uprate applications  
5 that have been approved since 1977.

6 For extended power uprates, the graded approach is  
7 expected to reduce resource expenditures from the uptick to 8,000 hours in  
8 recent years back down to about 5,000 hours. We will be tracking results to  
9 ensure these changes have the intended effect.

10 We are continuing our work to further streamline the staff's  
11 safety review for subsequent license renewal applications. The staff has  
12 implemented the license renewal roadmap to reliably complete reviews in under  
13 14,000 hours per application with a high-quality application and timely  
14 responses from the applicants to requests for information.

15 We have challenged ourselves to identify additional  
16 improvements, including further risk-informing our reviews commensurate with  
17 safety. One of the most impactful changes is to streamline our review of aging  
18 management programs by recognizing overlap with the existing oversight  
19 program.

20 We are also developing subsequent renewal guidance for a  
21 delta review approach to the scoping and screening portion of the application to  
22 leverage information from the initial license renewal if the methodology for  
23 scoping and results of screening are unchanged and continue to apply.

24 For example, structures such as the turbine building and  
25 water treatment building, scoping and screening results may be incorporated by

1 reference into the subsequent license renewal application. We anticipate these  
2 changes will save 20 percent in staff hours for the safety review.

3                   Recently, NRR management issued a memo to staff to  
4 reinforce expectations for licensing efficiencies. The memo will drive staff to  
5 focus on disciplined, safety-focused, risk-informed reviews, and we will be  
6 following up with guidance later this year for staff and applicants to apply best  
7 practices across all pre-application engagements. Next slide, please?

8                   One of the early developments, excuse me, one of the early  
9 deliverables for the agency was the Section 401 report on advanced methods  
10 of manufacturing and construction for nuclear energy projects. We built on the  
11 agency's ongoing activities in this area and benefitted from stakeholder  
12 engagement to think beyond the traditional reliance on nuclear codes and  
13 standards to identify the actions in the report.

14                   Both participants in our public meetings and written input  
15 identified additive manufacturing for large reactor components as an  
16 enhancement for future reactor construction. Stakeholders also highlighted the  
17 use of new materials that would be suited to the expected high-temperature  
18 environment of advanced reactors such as a new Class A advanced austenitic  
19 stainless-steel alloy.

20                   Based on this input, the NRC team identified the development  
21 of additional guidance for emergent technologies as an action that would  
22 enhance efficiency in staff reviews and provide greater clarity to applicants.  
23 The staff plans to initiate development of this guidance later this year.

24                   We are also accelerating the endorsement process to provide  
25 regulatory predictability for applicants who want to use code approved

1 innovative manufacturing techniques and materials.

2 An early demonstration is publishing the draft regulatory guide  
3 that, if finalized, would endorse the 2023 edition of ASME Section III, Division 5,  
4 for high-temperature reactors. This draft regulatory guide was published in an  
5 expedited timeframe this past December.

6 Timely endorsement is of particular importance for applicants  
7 who rely on these standards for the construction of metallic nuclear plant  
8 components that operate at temperatures greater than 700 degrees Fahrenheit,  
9 such as the salt-cooled, high-temperature Hermes test reactor. Next slide,  
10 please?

11 Over the past seven months, we have worked to identify  
12 crosscutting solutions and coordinate across teams to ensure a synergy  
13 between implementation of the various sections of the Act. For example, as  
14 part of implementation of Section 206, we are exploring ways to expedite the  
15 licensing review process for proposed nuclear facilities at or near brownfield  
16 and retired fossil fuel sites.

17 Public meetings provided insights into legacy site issues and  
18 potential benefits for sites historically involved with energy production. Reliance  
19 on previous site characterization offers the opportunity to reduce the time  
20 needed for an applicant to prepare site-specific information for an application.

21 Additionally, the ability to use existing infrastructure, such as  
22 electric transmission and switchyard components, provides other potential  
23 benefits for applicants. The staff is on track with its assessment to support  
24 meeting the deadlines in Section 206.

25 The staff is also making progress in implementing Section

1 207, which provides for an expedited combined license or COL procedure for  
2 qualifying license applications. The staff stands ready now to review  
3 applications submitted requesting the expedited procedure.

4 We are developing guidance to be issued later this year to  
5 provide clarity on which applications will fall under Section 207, and we  
6 recognize that our work developing expedited processes will have benefits for  
7 all reviews.

8 In addition to utilizing the design-centered review approach  
9 described in guidance, the use of applicable existing data, such as  
10 meteorological or other environmental information, may reduce the time to  
11 develop an application.

12 The type of application that we anticipate seeing submitted  
13 under Section 207 would be for an existing design, like the AP1000 reactor,  
14 planned for deployment at an existing reactor site.

15 In this scenario involving a previously approved design and  
16 existing early site permit approved at the site, significant portions of the staff's  
17 safety review have already been completed, and in accordance with our  
18 guidance, can be incorporated by reference into the application, saving time  
19 and resources for applicants and the staff.

20 You will hear about the work we've been doing to implement  
21 Section 208 regarding microreactors at the upcoming April Commission  
22 meeting. This concludes my remarks and I will now turn it over to Jeremy  
23 Groom. Thank you.

24 MR. GROOM: Thank you, Michele. Good morning,  
25 Chairman and Commissioners. Today, I'm going to brief you on how the NRC's



1 regional offices are impacted by the ADVANCE Act with a focus on staff actions  
2 to respond to Section 507, which requires the NRC to assess improvements to  
3 the efficiency of our Oversight and Inspection Programs. Next slide, please.

4               To start, I'd like to build on Michele's discussion of  
5 stakeholder outreach and the importance of considering a wide range of views  
6 as we conduct the assessment for Section 507. One of the most important  
7 pieces of feedback we've leveraged is input from our inspection staff. These  
8 staff are deeply familiar with the intricacies of our Inspection Program and know  
9 where our oversight delivers significant safety benefits. On the other hand, they  
10 are also well aware of where we face inefficiencies, duplication or where the  
11 safety benefit doesn't align with the effort we expend.

12              Over the past seven months, we've sought feedback from our  
13 inspectors through focus group sessions, presentations at annual inspector  
14 counterpart meetings, suggestion forms and through the ADVANCE Act  
15 engagement portal. This outreach effort yielded over 100 different improvement  
16 ideas from our inspectors. For example, our resident inspectors identified that  
17 we have been expending duplicative resources monitoring reactor coolant  
18 systems for RCS leakage using overly conservative action levels. While  
19 tracking leakage remains an important part of our Oversight Programs, the  
20 resident inspectors' contributions to our ADVANCE Act work will allow us to  
21 eliminate this redundancy while maintaining an appropriate focus on the RCS  
22 barrier. Next slide, please.

23              Before diving into some of the ideas currently under  
24 consideration related to Section 507, I'd like to briefly outline how we approach  
25 this task. Very early on, we recognized that understanding the origins of the

1 NRC safety framework and the current state of industry performance was  
2 crucial to this project's success. This chart, which shows the total number of  
3 reactor SCRAMs and accident sequence precursor events each year since the  
4 inception of the reactor oversight process or ROP, is one example of  
5 information used to develop our ideas. Analysis of this data showed us that the  
6 average number of SCRAMs each year since 2020 is about half of what it was  
7 during the first five years of the ROP. Likewise, accident sequence precursor  
8 events are down by almost two-thirds when comparing the same time frame.

9                   We then examined the expected baseline inspection resource  
10 expenditures over the ROPs 24-year history. This data revealed to us that the  
11 ROPs expected level of effort when comparing 2000 to 2024 dropped by about  
12 12 percent, with most of that reduction coming in the last three years because  
13 of the initiatives to better risk inform the Inspection Program. Our takeaway is  
14 that while the ROP has seen significant modifications over the last 24 years,  
15 most changes were internal shifts to our inspections that didn't significantly  
16 change the resources we expend on oversight.

17                   We also looked at other measures such as greater than green  
18 findings, NRC performance indicators and overall plant risk profiles. These  
19 other measures show similar performance trends and suggested improvements  
20 in industry performance have outpaced how the NRC allocates oversight  
21 resources, driving us to be ambitious as we work to modernize the ROP. Next  
22 slide, please.

23                   I'll now highlight the enhancement ideas under consideration  
24 for the ROP. Our most ambitious idea involves a comprehensive review of all  
25 performance indicators and inspection procedures across every ROP

1 cornerstone. We expect this review will identify readily available plant  
2 performance data currently used by the industry but not considered in the ROP  
3 that can be leveraged to reduce inspections in areas where industry  
4 performance is adequately monitored. Although this comprehensive review will  
5 take time, we've identified immediate opportunities for change within the  
6 existing ROP framework. These changes include a scope reduction to our  
7 largest team inspections as well as the development of staff guidance allowing  
8 inspection reductions for plants that had maintained column one performance.

9                 Likewise, in the security cornerstone, we've identified  
10 opportunities to adjust the frequency, schedule and content of our security  
11 inspections. This would reduce travel costs, improve consistency across the  
12 regions and prioritize inspector focus on those elements with the greatest  
13 security significance.

14                 Collectively, as a result of these changes, we expect average  
15 ROP resource savings of 300 hours annually for each reactor site. This is  
16 approximately a seven percent total reduction in ROP resources per site, which  
17 is the equivalent of one less major team inspection.

18                 We are also developing ideas involving white findings to  
19 better align these assessment inputs to their actual risk of public health and  
20 safety. For example, we are considering an idea that would give licensees  
21 credit for identifying white findings. These findings would still be inspected to  
22 confirm corrective actions but would not result in increased oversight typically  
23 associated with the regulatory response column of the Action Matrix. This  
24 change would encourage licensees to identify and address issues proactively  
25 directly improving safety and security of NRC regulated facilities.

1                   Finally, we plan to change how the NRC prepares for,  
2 documents and closes out inspections. For example, we are currently revising  
3 our Inspection Manual to strengthen our use of the Very Low Safety  
4 Significance Issue Resolution or VLSSIR process. This expansion would allow  
5 our inspectors the opportunity to use VLSSIR for all very low risk compliance  
6 issues rather than just limiting the program to licensing basis questions.  
7 Further, we will include new staff guidance addressing the amount of inspection  
8 resources we expend on an issue before we enter the VLSSIR process,  
9 ensuring that we don't expend unnecessary resources on issues of low safety  
10 or security significance.

11                   To monitor our performance in this area, we will use public  
12 facing metrics to measure our ability to complete our inspections on time and  
13 within the expected number of resources. Next slide, please.

14                   Like we did for the ROP, we closely examined the history of  
15 our materials oversight programs to explore new ways to better expend our  
16 resources. For example, in the Fuel Facilities Inspection Program, we adjusted  
17 inspection frequencies, reduced overlapping requirements and provided  
18 oversight reductions for sights with an approved Corrective Action Program.  
19 Over the last three years, these program adjustments reduced our direct  
20 inspection costs by as much as 16 percent without compromising safety or  
21 security. We have made similar inspection changes to our other Materials  
22 Inspection Programs and business lines and we are incorporating the VLSSIR  
23 process into those programs allowing our staff the ability to resolve challenging  
24 compliance issues that are resource intensive but carry low safety significance.

25                   In addition to these recent changes, we are developing

1 several ideas that will make materials inspections more efficient using modern  
2 information technology, improved inspection report formats, centers of expertise  
3 and streamline internal processes such as those used for enforcement actions.

4 These improvements would help make our staff's work easier and reduce the  
5 regulatory burden on NRC licensees.

6 Finally, I'd like to highlight our Differing Professional Views  
7 Program. Like our Oversight Program work, we gathered feedback, conducted  
8 benchmarking and analyzed key data including timeliness metrics to assess the  
9 programs impact on agency work. Our team is developing an analysis  
10 determination tool that uses evidence strength and safety significance to guide  
11 scheduling and resource allocation and, in some cases, identify alternative  
12 resolution to differing opinions. This will help ensure that differing views are  
13 resourced and resolved in a manner that is consistent with their safety  
14 significance.

15 This concludes my remarks. I will now turn it over to Eric  
16 Dilworth. Thank you.

17 MR. DILWORTH: Good morning, Chairman and  
18 Commissioners. Thank you for this opportunity to discuss our efforts to  
19 implement Section 502 of the ADVANCE Act. I would like to note that we are  
20 engaging with the union, NTEU, on appropriate aspects of the implementation  
21 plan for the new authorities associated with Section 502 of the ADVANCE Act.  
22 Next slide, please.

23 I would like to begin today by talking about hiring authorities  
24 which are pivotal in addressing work force gaps. Thanks to the ADVANCE Act  
25 we now have the ability to streamline hiring for exceptionally well qualified

1 individuals when needed. One of the most impactful tools at our disposal is  
2 direct hire authority. Direct hire authority accelerates the process for bringing in  
3 highly specialized professionals and allows us to target external professionals  
4 for covered positions.

5                   This outreach can include industry engagement, partnerships  
6 with educational institutions and networking to attract high caliber talent. The  
7 NRC can identify covered positions that require highly specialized expertise or  
8 necessary for timely, efficient and effective agency performance. For example,  
9 the timely completion of novel or first of a kind regulatory issues. This would  
10 also include individuals in fields where expertise is scarce, such as advanced  
11 reactors, data science and risk informed regulatory processes. Next slide,  
12 please.

13                   Over the past decade, we improved our ability to overcome  
14 high rates of attrition. Over the past two years, we onboarded a net gain of 155  
15 new employees. We've done this by prioritizing recruitment to hire individuals  
16 with highly specialized skills. The NRC's attrition rate continues to be in line  
17 with the seven to nine percent attrition rates for the federal government;  
18 however, our attrition rates for highly specialized positions, such as structural  
19 engineers, health physicists and other scientific positions have seen attrition  
20 rates up to 20 percent.

21                   These figures reinforce the importance of strategic work force  
22 planning and the need to strategically address recruitment and retention  
23 challenges, forecast work force trends and ensure the alignment of human  
24 capital with work force and workload needs.

25                   I look forward to sharing OCHCO's progress on the

1 development of the new strategic work force planning process and the initial  
2 results by June of this year.

3                   To further enhance our conversation offerings, the ADVANCE  
4 Act allows us to implement targeted recruitment bonuses, new hires in covered  
5 positions can receive a one-time recruitment bonus contingent on a two-year  
6 service agreement. This is consistent with other NRC incentives where a  
7 service agreement is tied to the incentive and assures we're not only attracting  
8 the best candidates, but also retaining them.

9                   The act allows us to offer higher base salaries for designated  
10 covered positions. These will be positions for exceptionally well qualified staff  
11 that require highly specialized expertise or are necessary for timely, efficient  
12 and effective agency performance. Next slide, please.

13                   In this environment where we value innovations, especially in  
14 challenging technical areas or in identifying efficiencies, recognition is  
15 extremely important. Consistent with our mission statement, we recognize that  
16 the quality and timeliness of our contributions are important to the safe and  
17 secure use and deployment of civilian nuclear energy technologies and  
18 radioactive materials through efficient and reliable licensing, oversight and  
19 regulation.

20                   Under the ADVANCE Act, we have the authority to reward  
21 exceptional employee performance with bonuses up to 25,000 dollars. These  
22 bonuses are awarded to employees who demonstrate exceptional performance,  
23 whether through solving complex regulatory challenges or completing high  
24 impact projects ahead of schedule. This strategy incentivizes high caliber  
25 performance and addresses retention challenges for critical roles.

1 Utilizing existing authorities, such as time off awards, special  
2 act recognition and end of the year performance awards are also key tools in  
3 our strategy to reward staff for significant contributions to achieving our mission.  
4 Next slide, please.

5 Investing in the next generation of regulators is essential for  
6 NRC to meet frequent work demands. The ADVANCE Act requires annual  
7 solicitation of applications for the Nuclear Regulator Apprenticeship Network  
8 Program versus every other year. The increased frequency will provide a  
9 pipeline for targeted specialized positions with high attrition rates or positions  
10 with retention challenges. The program offers structured training and  
11 mentorship and allows participants to gain hands on experience in regulatory  
12 practices, technical analysis and stakeholder engagement.

13 We're also expanding our focus on employee development.  
14 Through the NRC's Learning Management System, we track training needs,  
15 outcomes and completion rates. This system allows us to deliver targeted  
16 training programs that align with organizational priorities and employee career  
17 goals. By offering programs that prepare employees for technical roles, we're  
18 ensuring a smooth succession pathway. These efforts are more than about just  
19 training, they're about creating a culture of continuous learning and professional  
20 growth.

21 Now, I will turn to Mirela for closing remarks.

22 MS. GAVRILAS: I'll keep the closing remarks and just offer  
23 us for your questions.

24 CHAIRMAN WRIGHT: Thank you, Mirela, and thanks to each  
25 of you for your presentations today and to those who are behind you supporting



1 you in your preparation as well. I'd be remiss if I did not thank my own staff for  
2 preparing me, so thanks to them.

3 As we did in the first panel, I'm going to begin with questions  
4 from the Commission. Mirela, I've got to come back to you. As you mentioned,  
5 the Commission recently approved our new mission statement. What are we  
6 doing now? Where are we in this process to get the new mission statement  
7 embedded and enmeshed throughout our culture?

8 MS. GAVRILAS: I think we made great progress since the  
9 Commission passed the new mission statement. Most significantly, we broke  
10 down the mission statement into its four fundamental elements and that's a  
11 departure from how we treated the previous mission statement, where we  
12 focused on reasonable assurance of adequate protection because the new  
13 mission statement is so much more than that and each element matters.

14 We've also solicited from the staff, we designed a straw man  
15 of what can we specifically ask the staff to consider when implementing each of  
16 the four elements of the mission statement. So far, we got quite a bit of  
17 engagement and we were able to put the right categories under each element.  
18 The other part of the strategy has been to bring a leader to oversee this effort.  
19 A leader who can quickly integrate with the first line contributors so that we can  
20 have a bottoms up kind of feeding into the implementation strategy.

21 Our implementation strategy will focus on identifying how the  
22 new mission statement applies to everybody be they in rulemaking, be they in  
23 licensing, be they in oversight and also in our corporate areas which are called  
24 out explicitly financial, keeping the lights on, what have you. Our friends in the  
25 Commission offices, for example, our colleagues who are doing legal work, our

1 colleagues who are doing international work have also agreed to help us out  
2 with identifying the right things for them to do.

3 CHAIRMAN WRIGHT: Thank you. This might be for you, but  
4 others can chime in. Michele, maybe you or Jeremy and Mike, safety continues  
5 to be our north star, that's the strike zone over home plate so this is not about  
6 safety, this is about process and it's about results. You heard in the first panel  
7 that alignment that D.G. Magwood spoke to, right, at every level. It's about the  
8 process to improve the process, to fix the process, change the process in order  
9 to get things through and out the door. Whether it's part 53, SDA reviews,  
10 power up rates, subsequent license renewal, novel technologies or other items  
11 or issues that we tend to get stuck and bogged down on that are of low to no  
12 safety significance.

13 What can we do? What are we doing today that can get us to  
14 show results and I mean more results, not just one result, but where we can just  
15 keep banging these things out the door.

16 MS. GAVRILAS: I see Mike reaching for it so I'm going to let  
17 him take the lead on that, please.

18 MR. KING: Okay, I see this as an area where there is a lot of  
19 opportunity for us as an agency to gain some additional efficiencies. We've  
20 done a lot over recent years, things like the VLSSIR process that Jeremy  
21 mentioned, but I think we still identify amongst the staff when we ask, we've  
22 identified situations where we were slow to recognize when we were spending  
23 too much time on a low-level issue. Or, when we discover we're dealing with a  
24 low-level issue that we were already spending too much time on, sometimes we  
25 find that we've got barriers that just don't make sense and interfere with our

1 ability to what seems to be kind of common-sense things.

2                   The real opportunity for us in things we're doing is we're  
3 expanding, as Jeremy said, expanding the opportunity for VLSSIR to cover  
4 more areas, all compliance issues not just things that are limited licensing basis  
5 questions, being more explicit with our expectations. If leadership has an  
6 expectation for how much time we spend on a low-level issue, let's be explicit  
7 about it and so we're looking to be explicit, document what that expectation is.  
8 Develop metrics to hold ourselves accountable. If we think we've got an  
9 expectation, let's make sure we're measuring everywhere we do that so that we  
10 can see are we having the intended effect.

11                   The discussion we had earlier about the Differing Views  
12 Program, being smarter as we enter that process, of course, we have to be  
13 open to differing views that's very important for us to make informed decisions,  
14 but also being deliberate about how much time we want to spend debating an  
15 issue if it's a low-level issue and making that into the frame work of our process.

16                   CHAIRMAN WRIGHT: Exactly, and is this an opportunity for  
17 us in a project management kind of reorganization that I've heard you speak to,  
18 Mirela?

19                   MS. GAVRILAS: Project management is definitely going to  
20 be a very high priority for this agency in the next couple of months. I will be  
21 rolling that out in a more disciplined fashion, but heads up, it's going to impact  
22 all of us.

23                   I want to add something to what Mike said. One of the best  
24 things that we can do to eliminate barriers is to provide people with tools and  
25 one of those tools is a fundamental assessment of the safety and security

1     implication of something or the impact of an activity in the corporate domain.  
2     That tool should be available to everybody so that we can align on that early, so  
3     that we can decide what effort is necessary commensurate with that safety  
4     significance and impact.

5                     CHAIRMAN WRIGHT: Thank you. Mike, this stuff has come  
6     up many times over the years and it's what's considered consulting versus  
7     being a helpful regulator. I felt for a long time personally and I've expressed it  
8     to you that we sometimes don't answer questions we know the answer to and  
9     instead sometimes play bring me another rock. I know this is something that  
10    you're looking at. Can you kind of tell me where you're looking at drawing the  
11    line or where is that line drawn?

12                    MR. KING: Yeah, this is kind of a cross-cutting issue. I think  
13    it reaps benefits across licensing, inspection so it's an area of opportunity for us  
14    that could reap significant benefits. Through our interaction with stakeholders,  
15    we have heard and I think staff I've interacted with from the NRC have heard,  
16    sometimes there are differences between how some staff, the level of comfort  
17    they have in interactions with stakeholders, on sharing operating experience.  
18    Sharing things that have been successful in the past to help get past situations  
19    where we're apparently talking past each other and not making progress  
20    particularly in situations where there's a low-level safety issue at play.

21                    The analogy I give frequently is you're doing a kitchen  
22    renovation and you have to do an electrical inspection. Do you want the  
23    inspector who comes out that doesn't interact with you, doesn't answer your  
24    questions, gives you a ticket and says you failed the inspection and which rule  
25    you failed or do you want one that comes to you and answers your questions

1 along the way, says yes, you failed, but here are some things I've seen that  
2 have been successful in passing this inspection. We need to move the  
3 organization in a direction where we're more like the latter.

4 We have to do it in a transparent way so that our stakeholders  
5 feel confident that we're not doing something behind the scenes, not in  
6 transparent view of the public. So, we need to help the staff understand where  
7 is that line between being a helpful regulator consistent with the mission to  
8 enable the safe use where it makes sense and crossing the line to where you're  
9 essentially saying ahead of time if you do this, we will approve it.

10 CHAIRMAN WRIGHT: Yeah, so I was going to ask you the  
11 mission statement, I think, we really intended to try to get to that a little bit, not  
12 just safe use but safe deployment, right? Because that's in there too. This is  
13 something we're following, I just wondered if the mission statement, as people  
14 get used to it, do you think that's going to give them the confidence that yes, we  
15 are supposed to get involved a little bit deeper?

16 MR. KING: Yeah and that's a key aspect and you'll hear a lot  
17 more about that on Thursday at our public meeting after the RIC.

18 MS. GAVRILAS: I'm going to take a moment and chime in  
19 there. That's a big cultural shift and one of the things that we're careful about in  
20 the deployment and implementation of the mission statement is to not appear  
21 that the decisions are made by a select few. We want to engage everybody so  
22 that they understand the rationale for every word that's going to appear in the  
23 guidance for the mission statement implementation.

24 CHAIRMAN WRIGHT: Thank you for that. I've got about 25  
25 seconds left. Michele, I'm going to get to you later and we're going to have a

1 conversation. I'll bring you up and we'll talk about some things. I wanted to let  
2 you know and Theresa Clark too, by the way, you all are two people I hear kind  
3 of in tandem, a lot of good things people are saying about you and about the  
4 work that you all are doing. I wanted to one, thank you for the work that you're  
5 doing and let you know what I'm hearing inside and outside the walls because I  
6 think it's important. I think that demonstrates that we are trying to be more  
7 proactive and accommodating where we can be on those things, especially in  
8 the areas -- safety is safety we get that, but in the areas where we can try to  
9 streamline and push things together, so thank you.

10 With that, I will turn it over to Commissioner Caputo.

11 COMMISSIONER CAPUTO: Good morning. Thank you all  
12 for being here. As the Chairman said, thanks for all your preparations to be  
13 here today.

14 Director General Magwood and Commissioner Marzano both  
15 noted and made comments about the fact that the authorities in the ADVANCE  
16 Act were largely authorities that the NRC already held. I think for me when I  
17 think about that I have to question why was it that Congress felt the need to  
18 reassert those particular authorities. Why there was such strong support for  
19 doing so. That is something I think all of us need to take to heart and reflect on  
20 - how did we get here? Like the Chairman said safety being our north star, I'm  
21 confident that every employee works to preserve safety.

22 One of the challenges I think we struggle with is to recognize  
23 that individual independence doesn't imply isolation. Each person should  
24 consider their role not standing on its own but how it contributes to the whole  
25 because the agency is going to be judged on results. While the NRC has long

1    been regarded as the gold standard for nuclear safety regulation and has a  
2    proud history, it's clear that the administration and Congress both expect  
3    improvement from the agency and all of us have a role to play in creating those  
4    changes.

5                   No where is it more evident than Congress' direction to revise  
6    our mission statement which the Chairman mentioned. We responded with a  
7    mission statement that stresses enabling the safe and secure use and  
8    deployment of nuclear technologies. This is a significant shift in culture and  
9    mindset but fully consistent with our principals of good regulation as Mirela has  
10   stressed before.

11                  Mirela, the mission statement should also guide strategic  
12   planning, providing a framework for setting goals and measuring progress. In  
13   line with this being an element to change culture, obviously the industry knows  
14   very well it's incredibly important when attempting to change culture that  
15   training plays a significant role. So, how are you planning to train the work  
16   force to conduct the timely, predictable and consistent licensing reviews as  
17   stressed in the ADVANCE Act?

18                 MS. GAVRILAS: So, we don't have all the answers yet, but  
19   what we do have is I have a cheat sheet in front of me that has the breakdown  
20   and the major categories and I'm looking at what do we have under enabling  
21   safe and secure and we have timeliness, we have goal driven. We have  
22   customer service orientation and by customer service, I mean a predisposition  
23   to say yes whether Chris is asking me a question or an external stakeholder is  
24   asking me a question, it's not the traditional customer service that people may  
25   think about.

1 Under timeliness we have adaptability, flexibility and what  
2 we're going to do is actually give examples on how the activities that we've  
3 done so far have actually demonstrated that we can be adaptable, we can be  
4 flexible. We're going to look in the past and try to find examples of where we've  
5 done something right to incentivize people to exhibit the same behaviors going  
6 forward.

7 COMMISSIONER CAPUTO: And is this going to become  
8 enshrined in performance plans because don't performance plans then extend  
9 from the strategic plan?

10 MS. GAVRILAS: We expect -- we have an implementation  
11 strategy that goes all the way from modifying the management directives, office  
12 instructions, organizational performance and other performance plans, but  
13 there's going to be an order in which that is going to happen because --

14 COMMISSIONER CAPUTO: Okay.

15 MS. GAVRILAS: At least some of them --

16 COMMISSIONER CAPUTO: Thank you.

17 MS. GAVRILAS: Need to be discussed with the union.

18 COMMISSIONER CAPUTO: So, in keeping with culture,  
19 Mike, obviously we've had a lot of talk this morning about progress. There's a  
20 website. We've got project teams assigned, lots of public meetings, collecting  
21 suggestions. There are a lot of things that sound like common agency  
22 practices at a time when the administration and Congress are expecting  
23 change. How can you be sure that these activities are actually shifting culture  
24 and having a real measurable impact on how things are done? How will we be  
25 able to tell when we've actually achieved a shift in business as usual?



1 MR. KING: Well, first off, just share, you know, in my role I  
2 got the opportunity to go to several offices of the agency and interact directly  
3 with staff. One of the things that I was most impressed with is there's a thirst  
4 and recognition to contribute to the inflection point we're seeing and the  
5 important role that we have as an agency in that. We've seen a lot of efforts of  
6 staff to contribute ideas and some of the ideas have been pretty big ideas. I  
7 think there is an energy amongst the staff of really kind of helping to contribute  
8 to the future direction of the agency in a positive way.

9 But how do we make sure that's sustainable and we measure  
10 our progress? We have to ingrain that, you know one thing staff always do or  
11 inspectors love to do is follow procedures and engineers do that. We have to  
12 find everywhere in our procedures where there's a decision point and we need  
13 to change consistent with our mission to make sure we're making those  
14 decisions. We have to ingrain and measure the outcomes, right? An update of  
15 the mission statement is that we deliver results, it's not just we're enabling, it's  
16 enabling the delivery of results and it's got to be safe.

17 We put metrics in place, we'll measure it and a measure of  
18 success is over time the same type of licensing reviews, I would expect, we  
19 would take less time to do the same time of licensing reviews.

20 COMMISSIONER CAPUTO: So, if that's the case, I mean  
21 given just the measure of talk about efficiency, the focus on efficiency in the  
22 ADVANCE Act, if we're going to see these real efficiencies and they're actually  
23 going to be measured, where is that going to be reflected? How is that going to  
24 be reflected in budget going forward? Because the reality is if we are saving  
25 money through efficiencies and licensing and inspection, if we aren't reflecting

1 that in the budget then the cost will simply be shifted from Part 170 into Annual  
2 Fees and the notion of efficiency really becomes a mirage because the savings  
3 actually weren't captured.

4 MS. GAVRILAS: So this is where the project management  
5 initiative will come into place because there will be no place to shift without a  
6 conscientious putting in place another project and when a project is put in  
7 place, it's going to be put in place according to the priorities that we have in the  
8 Action Matrix which was developed during Project M, but remains current today.  
9 We intend to do that to an extent to which the agency has never done it in the  
10 past.

11 MS. SAMPSON: If I could just add a brief thing. For  
12 example, with license renewal, our budget model for license renewal we  
13 adjusted to reflect a 14,000 hour level of effort, but then in looking forward to  
14 '27, we recognize that we have additional efficiencies that we see are in the  
15 works and so we actually further reduced our budget model.

16 It won't fix this year, which is the question that you were  
17 raising, but it will ensure that as we are putting together the '27 budget model,  
18 that we recognize the lower level of effort that it's going to take per case, which  
19 also enables us to be better prepared to cover the number of license renewal  
20 cases that we see coming in.

21 COMMISSIONER CAPUTO: Wow, I like Mike's focus on  
22 metrics because at some point, I think we need to prove it to ourselves that we  
23 are actually seeing efficiencies. It is very easy to talk about processes and  
24 efficiencies, we need to actually prove it to ourselves and to our external  
25 stakeholders that we are, in fact, more efficient.

1                   There's one last issue I'm going to spend a moment on.  
2   Commissioner Marzano focused on self-revealing events and I just want to start  
3   from a position of regulatory activity should be consistent with the risk reduction  
4   achieved and to the extent that self-revealing activities, self-revealing issues  
5   are safety significant, we have an inspection program in place to address those  
6   if they are not safety significant. Then, we also have the VLSSIR process  
7   which Mike talked about for dispositioning things that are not safety significant.

8                   I guess my concern would just be at a time when we are  
9   trying to focus on being efficient and focus on things that are safety significant  
10   that we not open up another front into areas which are by definition not safety  
11   significant, since they are not focused on within our inspection authority.  
12   Pursuing some of these things that are beyond what we account for in our  
13   inspection program and what we focus on in safety significant in trying to  
14   anticipate these equipment issues that are self-revealing. The very nature of  
15   pursuing that ends up being subjective and speculative.

16                  I think it's very difficult to determine how much of an effort  
17   would actually be warranted, how much of a safety benefit you would get from  
18   such an effort. So, I would just like to caution that we have programs in place  
19   like the Maintenance Rule, Corrective Action Program and our Reactor  
20   Oversight Process that clearly have done quite a bit to drive safety  
21   improvement in the industry. I would caution against getting into areas that are  
22   inherently subjective and speculative. Thank you.

23                  CHAIRMAN WRIGHT: Thank you, Commissioner Caputo.  
24   Commissioner Hanson?

25                  COMMISSIONER HANSON: Thank you, Mr. Chairman.

1 Well, thank you all for being here and for the presentations this morning. I just  
2 wanted to kind of start off just recognizing the incredible work that the staff has  
3 done, not only in the last eight months, but I think really leveraging some of the  
4 ongoing efforts over the last several years to make this place more efficient.

5 The way that you all have dived in and tackled the ADVANCE  
6 Act and gotten organized around and have already some deliverables to show  
7 for this, I'm really impressed and proud of all of you for the effort across the  
8 entire agency that's gone into this so thank you so much.

9 Jeremy, I'm just going to start with you for a minute if I can.  
10 There were a couple of things in your presentation that really jumped out at me.  
11 There was a 12 percent efficiency and a 16 percent efficiency and those  
12 numbers were really good, but I think what jumped out at me even more was  
13 those are things that would have been achieved in like the last three years. It's  
14 almost like the agency took the disruption of the pandemic to take a step back  
15 and focus on things that were actually more important and more relevant for  
16 safety to really revise our inspection procedures and focus on the things that  
17 are really essential to our oversight mission. Do you think that's a fair  
18 assessment?

19 MR. GROOM: Yes, sir, I do think that's a fair assessment.  
20 We've been through ROP enhancement for several different iterations and it's  
21 been some piecemeal progress. I think that the efficiencies that I highlighted in  
22 my presentation show the progress we've made.

23 The ADVANCE Act gives us the opportunity for more and I  
24 think that as we really looked at where the ROP was in the year 2000 compared  
25 to 2024 and then we compared the state of industry performance, the 2000

1 resource expenditures that we expected for the ROP were based on  
2 performance in the mid '90s at these plants. Things have changed so much in  
3 the last 24 years.

4 Mr. True's presentation highlighted some of those things. My  
5 presentation highlighted those things. I think we agreed on the dataset and we  
6 understand that changes have happened and so even though we've made  
7 changes, the changes have been incremental. We see the ADVANCE Act as  
8 opportunity to do more and get us to the right point.

9 COMMISSIONER HANSON: Yeah, to keep going, keep  
10 moving head.

11 MR. GROOM: That's right.

12 COMMISSIONER HANSON: Building on the success that  
13 we've seen.

14 MR. GROOM: Yes, sir.

15 COMMISSIONER HANSON: Yeah, I think that's great. I  
16 want to stick with you just for a second because occasional certainly from -- I'll  
17 just own this myself, occasionally, I express a little dissatisfaction with the  
18 content of the slides and so forth that we have, but on page 18 of your section  
19 on the presentation, I think you all kind of hit that out of the park. It tells a clear  
20 story, the bullets support the data on the chart, so, well done on that. Sorry,  
21 Mirela's laughing.

22 Eric, I want to pick up on something that Commissioner  
23 Crowell brought up in the first panel and that was the potential for a disconnect  
24 between some of the actions we're seeing out of the administration and some of  
25 the actions that we've got ongoing here. I think it's really important for us to be

1 specific about the potential impacts to the agency.

2 We've got some of our folks here from the NRAN group,  
3 right? I mean one of the things the ADVANCE Act did was to tell us to do  
4 NRAN on an annual basis. I think the expansion of that program and doing that  
5 on an annual basis because it has been so successful over the last four or five  
6 years in getting new folks in the agency, getting them trained up, getting them  
7 invested in the mission.

8 I worry about well how do we kind of figure out and chart a  
9 path forward to maintain and improve and build where we need to that program  
10 given the environment and the other things that are going on that are impacting  
11 the federal work force at large.

12 Have you guys thought about that and how are you all  
13 approaching that?

14 MR. DILWORTH: Yes, sir. Of course, we continue to train  
15 the current NRANers we have. They're getting the experience of going out on  
16 their assignments, but as we work through the different hiring restrictions with  
17 agency leadership, we'll look at where our priorities should be. We'll work with  
18 leadership to identify those in the future and figure out where we need to hire  
19 and keep our talent coming in. I think that's more things we'll have to do.

20 In the meantime, as far as we talk about efficiencies, we'll  
21 keep doing efficiencies on how we bring in people so when we do start hiring,  
22 we'll be able to do that more efficiently and be able to get the right people on  
23 board.

24 COMMISSIONER HANSON: Okay, thank you.

25 MS. GAVRILAS: If I may?

1 COMMISSIONER HANSON: Please.

2 MS. GAVRILAS: We always see a caveat for public safety in  
3 the executive actions that are in front of us and we are seeing now, I've heard in  
4 Region III, I visited them last week, they told me that the pipeline for residents is  
5 drying up. There are other examples where the nexus between public safety  
6 and our staff may be so direct, my favorite example is a reactor examiner. The  
7 reactor examiner is responsible for licensing operators who in turn operate the  
8 plants safely. That's a really close nexus. It's a high burden for us to go and  
9 ask that we need to hire, but we will do it if it becomes necessary.

10 COMMISSIONER HANSON: Great, thank you very, very  
11 much for all of you on that. Michele, I'm sorry, I'm homing on the statistics this  
12 morning. You had a point in your presentation about going from 8,000, I think it  
13 was EPU's, right, extended power uprates from 8,000 to 5,000 but how do you  
14 know, is 5,000 a hypothesis? How do you know that that's the right number or  
15 if it should be lower or even potentially higher? How did you come to that?

16 MS. SAMPSON: Sure, thank you for the question. The 5,000  
17 is really based on historical trend analysis that we had done on the EPU  
18 reviews that were completed in the past. We made safety findings in the past  
19 with about that level of effort and so we've set that as our initial goal to aim for  
20 that as being an appropriate level of effort.

21 Let me just add there that it is not our intent to rest on that as  
22 the final answer. We will continue to track progress to look at the programs that  
23 we're putting in place and ensure that we are actually completing reviews in the  
24 most efficient manner, consistent with the importance to safety and risk for that  
25 review.

1 COMMISSIONER HANSON: Okay, great. Thank you very  
2 much. I appreciate it. The reevaluation of that and the testing of that  
3 hypothesis is really going to be important going forward.

4 All right, Mike, let me just finish up with you. You talked about  
5 some of the barriers that we encounter occasionally to dispositioning potentially  
6 low safety significant issues in a timely way. In that discussion, you talked a  
7 little bit about procedures and desk guides and office things, guides, binder  
8 things --

9 MR. KING: Instructions.

10 COMMISSIONER HANSON: Right, office instructions, thank  
11 you, good lord. Even I can't keep it straight. Office instructions, etc., but  
12 sometimes they're actually our own rules, right? Some of these things are in  
13 regulation, right, and we have to follow our own rules. Sometimes those rules  
14 can be subject to interpretation and we can do that and engage the public and  
15 do that in a very transparent way, but sometimes the rules are actually pretty  
16 clear and we have to go in and actually change the rules. Are staff identifying  
17 those places where a rule change is potentially warranted and how are you  
18 doing that? What's the time frame of that potentially over the next, say, year or  
19 18 months or 24 months for some of that stuff to come to the Commission?  
20 Where we've said look, here's this piece of our regulations that, given what we  
21 know today, based on 50 years of experience and all of this stuff, isn't working  
22 for us or the public the way we think it should.

23 MR. KING: We're definitely, as part of the Congressional  
24 reports, I mentioned in my remarks, there's a three structure format. One is  
25 things that we've done, things that are ongoing and future things. Anywhere



1 there's an opportunity that we've identified as a potential future opportunity that  
2 potentially would include rulemaking, we will identify that and we have identified  
3 that as part of our Congressional reports so far. Perhaps Chris could talk with  
4 ongoing efforts of what they're looking at for streamlining rulemaking. There  
5 are efforts going on there.

6 I also wanted to mention one thing that I think there's an  
7 opportunity for us to look at. Compliance is you have to do it if it's clear it's a  
8 compliance issue, right? Frequently, we find ourselves where it's not quite clear  
9 and so we've got the VLSSIR process. I think frequently one of our biggest  
10 challenges is how do we deal with the situations where we do have a  
11 compliance issue, but it's really low-level risk.

12 We have the ability as an agency to issue enforcement  
13 discretion, interim enforcement policies, those sorts of things. One of the things  
14 we want to look at is figuring out do we have the right guidance in place for  
15 determining when it makes sense based on the risk to perhaps do that. If we  
16 see that we're doing that in the same area enough times, that's a sign maybe  
17 we need to change the rule, so that we don't have to do that anymore. That's  
18 one of the things we are looking at.

19 COMMISSIONER HANSON: Okay.

20 MR. KING: Chris, if you want to -- anything you want to add  
21 about the rulemaking?

22 COMMISSIONER HANSON: You don't have to, it's okay,  
23 Chris. Thank you, Mr. Chairman.

24 CHAIRMAN WRIGHT: Thank you, Commissioner Hanson.  
25 Commissioner Crowell?

1                   COMMISSIONER CROWELL: Thank you, Mr. Chairman.  
2     Again, thank you to all the panelists today for your presentations and thank you  
3     for all that you and your staffs do during these unprecedented and challenging  
4     times.

5                   Mike, I'm going to start with you and talk a little bit about  
6     public engagement vis-a-vis the ADVANCE Act, which I appreciate you  
7     presenting on and my understanding is that that's going well. I'd like to  
8     understand a little bit more from you about what's going well about that process  
9     and maybe specifically in contrast to some of the concerns about how we  
10    manage public engagement in the Part 53 Rule Development Process.  
11    Obviously, one is statutory information and the other is a rulemaking effort so  
12    there are different parameters there.

13                  That being said, I think the shortcoming with Part 53 was that  
14    we were taking a lot of input and not giving much output or rationale for what  
15    we were considering or why or what we were going to take. How have we  
16    improved upon that model in the context of ADVANCE Act engagement?

17                  MR. KING: No, thank you for the question. Early on when we  
18    divided up the efforts between the 20 different teams, we encouraged them to  
19    have frequent public engagements and frequent internal engagements with  
20    staff. We made sure staff was aware of what was going on and had the  
21    opportunity to contribute ideas and the public had opportunities.

22                  As members of the core team for the ADVANCE Act, we have  
23    had at least one of the members in every public meeting that's occurred. As we  
24    started having the sequence of meetings, we've learned lessons. We figured  
25    out which formats for meetings tended to get the most traction for engagement

1 with the public. To the public's credit, many times some of them have given us  
2 pretty direct feedback on what works and what doesn't work.

3 I think we've learned a lot through that process and during the  
4 course of the meetings, one of the things I do and I know others do is as we get  
5 questions where we feel like there's a lingering issue there, we really kind of  
6 help prompt the discussion to keep it going and to get very specific, can you  
7 give us more specifics? You say this is unclear, what aspect is unclear. So we  
8 really get to the root of the issue because some of these things are moving so  
9 quickly, we have to get the feedback in a very specific manner so that we can  
10 feed it into our process and inform our decision-making for some of these  
11 issues.

12 The other thing I'll mention is having multiple channels for  
13 getting that feedback, I think we've seen, has been important. We get verbal  
14 feedback during the meetings. Frequently, we get written input before or after  
15 the meetings and the public website. We've gotten a lot of input, as I  
16 mentioned during my remarks, electronically. We also identified every one of  
17 those 20 teams, who is the staff lead? We gave their email, we provided a  
18 separate email and so the multifaceted approach, I think, has yielded some  
19 benefits because we've gotten a lot of input along the way.

20 COMMISSIONER CROWELL: Along those same lines what,  
21 if anything, have you been able to do to expand the scope of the participants in  
22 these public engagements? I ask in the context of making sure we're not just  
23 preaching to the choir, hearing from the choir and making sure we're educating  
24 communities and individuals who may be impacted by an action that the NRC  
25 takes all in the vein of enhancing and maintaining our social license. Have you

1     been able to get much traction bringing new voices and interests to these  
2     meetings?

3                     MR. KING: Yeah, obviously we've tried to announce them  
4     ahead of time and some sections of the act are very explicit about which  
5     stakeholders we have to engage. Of course, we've reached out proactively to  
6     those, but in some areas of the act, and an example isn't coming to me, but I  
7     know we had these discussions ahead of time.

8                     We discussed deliberately hey, who else could be a  
9     stakeholder here that we haven't seen in a recent public meeting? Let's just go  
10    ahead and proactively reach out to make sure they're aware that this public  
11    meeting is coming, the opportunity. The example isn't coming to mind, but I  
12    know we've had those deliberate discussions. If any of you have got an  
13    example?

14                    CHAIRMAN WRIGHT: Michele?

15                    MS. SAMPSON: Within development of our Section 401  
16    report, one of the aspects the act asked us to look at was the use of non-  
17    nuclear codes and standards. We made a specific outreach effort to look at  
18    what codes and standards are used in the oil and gas industry, to look at the  
19    construction standards and to reach out to those standards organizations to ask  
20    them to engage in our public meetings that we were having on Section 401.

21                    COMMISSIONER CROWELL: And I would just encourage all  
22    of you to think broadly think about other state, local and regional associations or  
23    entities that you can engage with that may not realize that they have an interest  
24    in this, but with the hopeful renaissance that's coming our way, they're going to  
25    benefit from not being surprised.

1                   Along those similar lines, I'm going to move to Chris. We've  
2 talked a lot today about ways to streamline the environmental review process  
3 and I think these are good things, necessary things that we need to do and I  
4 hope it's one of the near term actions we can take to really continue to get the  
5 balance between safety and environmental reviews back in good shape.

6                   That being said, when we start to use categorical exclusions  
7 and generic EIS and things like that, it also changes the nature of our  
8 interaction with the public and with stakeholders. I think it actually changes it in  
9 a good way. I think it allow us to change our focus from engaging exclusively  
10 under a NEPA context to being able to engage -- let me just say it this way, as  
11 human beings, one and other. Just have early pre-NEPA engagements or pre-  
12 application engagements so that people don't feel that their only opportunity to  
13 weigh in and to be informed is through the NEPA process and then if they're  
14 concerned about how quickly something is moving or how well they can  
15 understand it, they can use NEPA to their advantage to slow things down.  
16 That's not necessarily what they want or what we want, but it's the only lever.

17                   Engaging more frequently with a wider variety of audiences,  
18 particularly with regard to environmental reviews, I think is going to benefit us in  
19 the near and long term. Any thoughts on that?

20                   MR. REGAN: Thanks, Commissioner, for the question.  
21 Yeah, I leverage what we heard from Dr. Huff about the right, appropriate  
22 balance between stakeholder involvement and the actual technical analysis. It  
23 does resonate with me from my experience, not only engaging with the tribal  
24 communities and pre-application activities, but also with the public.

25                   We frequently host open houses prior to public meetings that

1 we host. The ability to speak one-on-one with members of the public, talk to  
2 them about what our role is, talk to them about what we do, what our process  
3 looks like to inspire that stakeholder confidence does reap its benefits when we  
4 actually come to entertaining comments on the documents that we produce.

5 The tribal communities, I think I mentioned in my remarks, we  
6 engaged with one particular tribal community for one action and lo and behold,  
7 developed a relationship with them and they are now interested in being a  
8 consulting party in another agency action. You can kind of see that laying the  
9 groundwork with ensuring an understanding with stakeholders and the public on  
10 what we do and why we do, has its benefits across the entire program.

11 COMMISSIONER CROWELL: I appreciate that. I think  
12 educating our constituents and the public broadly is always to our benefit and  
13 will help smooth things out down the way. I'm going to turn to some hiring and  
14 retention issues and this is either for you, Eric, or Madam EDO. Are the hiring  
15 and retention authorities contained in the ADVANCE Act exempt from the  
16 current executive order hiring freeze?

17 MR. DILWORTH: As far as we know, they are not exempt  
18 from it. As Mirela alluded to, if we identify some critical hiring needs, we can  
19 work with the Office of Personnel Management and request exceptions.

20 COMMISSIONER CROWELL: Have we done that yet?

21 MR. DILWORTH: We have not.

22 COMMISSIONER CROWELL: What's the process for doing  
23 it? How are we strategically going about that?

24 MS. GAVRILAS: We have not. We haven't even looked at it,  
25 so it's a look up for us.

1 COMMISSIONER CROWELL: Okay. I hate to draw the  
2 general counsel in here, but is it accurate that the ADVANCE Act authorities are  
3 not exempt from the hiring freeze?

4 MS. CLARK: The NRAN authority, the direction to solicit  
5 annually for the NRAN is excluded in our view because that is a statutory  
6 authority that the hiring freeze by its terms did not apply to. The other  
7 provisions, the direct hire authority and the incentives, are associated with  
8 positions so if we were to seek an exception from the hiring freeze on a public  
9 safety basis and we wanted to use ADVANCE Act hiring authorities, I do not  
10 believe we would be limited in that regard, but positionally the first step would  
11 be to seek an exception from the current hiring freeze for the positions.

12 The most recent executive action associated with work force  
13 optimization indicates that once the agency's plan for work force optimization is  
14 reviewed and approved by the Office of Management and Budget and the  
15 Office of Personnel Management, the hiring freeze would be lifted. So, we are  
16 in the process of preparing that report for submission consistent with the  
17 administration's deadlines.

18 COMMISSIONER CROWELL: Yeah, but that timeline is  
19 uncertain in terms of when that plan will be proposed and approved. Who is  
20 considered the head of agency for making these exception requests for hiring?

21 MS. CLARK: The EDO through the Chairman, keeping the  
22 Commission fully and currently informed in most cases. Individual  
23 commissioners retain the authority to hire in their own offices and Commission  
24 Reporting Offices would work through the EDO.

25 COMMISSIONER CROWELL: Okay, great, thank you.

1 Thank you, Mr. Chairman.

2 CHAIRMAN WRIGHT: Thank you, Commissioner Crowell.  
3 Commissioner Marzano?

4 COMMISSIONER MARZANO: I want to start by saying thank  
5 you all again for your presentations. The NRC's updated mission statement  
6 has set the tone for the way as the agency closes the book on the first 50 years  
7 and enters into the next 50. I want to thank my colleagues here and their staffs  
8 for the efforts to release the updated mission statement in a timely efficient way  
9 to support both our staff and our Congressional obligations.

10 I believe that this mission statement strikes to the heart of  
11 NRC's role as a safety regulator and is aligned with the spirit of the agency's  
12 foundational statute, in the Atomic Energy Act, which clearly established our  
13 responsibility to ensure that nuclear technology is deployed safely and securely.

14 The updated mission statement also reflects this direction.  
15 Accomplishing it requires us to think differently about longstanding approaches  
16 to our essential work and to foster a culture of continuous improvement and  
17 innovation. Ensuring the NRC remains an effective regulator in this  
18 environment requires us to be more responsive to the paradigm shift in the  
19 generation of delivery of nuclear energy and applications of radioactive  
20 materials.

21 However, as I pointed out in my vote on the mission  
22 statement, the words on the page while they describe what we do and why we  
23 do it, do not entail how we do it. The latter requires clear direction to staff that  
24 describes mindset and behaviors to incorporate in their approaches to our work.  
25 It also requires concrete models of the type of actions that serve to forward our



1 mission.

2 I think a key piece of the staff efforts under the mission  
3 statement, and I appreciate, Mirela, your efforts here especially, of the  
4 socializing of ideas, communicating those across the agency to help visualize  
5 what culture is needed to affect the updated mission statement and direction  
6 from Congress.

7 I am very grateful for all of your efforts in meeting the near-  
8 term ADVANCE Act milestones. I am encouraged that the staff has already  
9 demonstrated their commitment to modernizing our regulatory frameworks,  
10 improving our efficiency and strengthening our work force.

11 With that said, I think I want to open up a question to the  
12 entire panel. The ADVANCE Act includes some very specific direction from  
13 Congress of different areas for the NRC to kind of do a deep dive in terms of its  
14 regulatory structure, especially in response to new applications involving  
15 technology. I'm also aware that there was plenty of work going on in each of  
16 these areas as the ADVANCE Act was being developed and passed. To that  
17 point, can anyone offer some of the areas that staff is addressing in response to  
18 the ADVANCE Act that were not previously identified or kind of lower in  
19 prioritization for the agency?

20 MR. KING: Yeah, I think the example we had the discussion  
21 on earlier about us clarifying the line between consulting and just being a  
22 constructive, helpful regulator that is an effort that's really certainly come out of  
23 our efforts. There's something that Mirela launched called strategic direction  
24 initiatives, which are broader agency initiatives that are cross cutting in nature.

25 We went about that effort in a way where we didn't feel

1 constrained to just look at areas specifically directed by the act. For example,  
2 when Section 505 of the act talks about licensing, it's largely focused on NRR.  
3 We made the decision early on to if we're going to expend agency resources,  
4 look for ways to be smarter about how we do licensing. Why would we restrict it  
5 to one business line? Consistent with the spirit of the act, let's spread that  
6 across business lines. We made the decision through our strategic direction  
7 initiative to go ahead and include all business lines in that effort. That's what's  
8 led to the LEAP teams that were mentioned in the presentation. There's one for  
9 materials and there's one for reactors. That's an example.

10 COMMISSIONER MARZANO: Thank you for that and yeah, I  
11 think to what's already been discussed here, the ADVANCE Act has some  
12 specific timelines and directions, but I think what it says ultimately is that the  
13 NRC needs to continue this culture of improvement into the next 50 years.

14 To the point about finding instances where the business as  
15 usual is not serving us, I think that those are probably the most high-value  
16 areas that we can address and having a systematic way of elevating issues that  
17 require the Commission to weigh in. To that point also, where our authority  
18 may be needing an update from Congress in keeping Congress informed of our  
19 potential needs from a legislative perspective is going to be crucial in this time  
20 as we lay out the foundation for the next decades or the coming decades.

21 As you start this look across the ADVANCE Act in these 36  
22 areas, one of the things to be mindful of is that the reports, they're trying to dig  
23 up lots of information about do we have policy questions? Do we need  
24 rulemaking? Do we need to develop guidance? Like, what do we need to do  
25 with our process, etc.? Can anyone maybe comment on what they think would

1 be the long pole in the tent right now? Something that we'd have to focus on  
2 over several years in order to affect.

3 MS. GAVRILAS: That's easy, culture. Culture does not  
4 happen overnight. The cultural shift, so I am very glad that we're not starting  
5 now. Today is not time zero. Time zero has been in my view about a year ago,  
6 a year and a half, when we knew that the ADVANCE Act is imminent, I think.  
7 As you well know, culture develops. There's the early adopters, there's the bulk  
8 of us who are learning and then there's going to be some people who we're  
9 going to have to bring along.

10 I think we're already past the early adopters and we're in the  
11 midst of where the majority of us are buying in.

12 MR. KING: Yeah, I would say because of the shift in the  
13 potential need, the focus on microreactors. There are so many new policy  
14 issues associated with that and obviously, we've had a lot of engagement on  
15 that issue that that's going to be -- there's a lot to that and some of those are  
16 probably going to take a lot of work to resolve.

17 I would think that's probably one we've got to spend a lot of  
18 time focused on to be able to be successful to make sure we're ready when the  
19 time comes, that those really start landing in our lap. That's another longer lead  
20 item, I think.

21 COMMISSIONER MARZANO: I would just encourage  
22 communicating with us early and often as this examination plays out. Just a  
23 brief comment about culture here and I think it was kind of clear from the staff  
24 presentations that getting buy in for that culture change is directly supported by  
25 kind of the deckplate level leadership in affecting those cultural changes.

1 I'm encouraged that many of the solutions that we're finding  
2 here are coming from the people doing the work every day. I believe that that,  
3 again, develops a sense of ownership and responsibilities and so I think  
4 continuing that as a way to maybe accelerate the cultural adoption that we're  
5 going after is going to be very important.

6 Really briefly, I think we talked at length about metrics and I  
7 share Commissioner Caputo's sense that how the metrics are measured and  
8 what they communicate and how we communicate that progress is absolutely  
9 essential to show that we're doing the work that's needed.

10 So, I kind of want to turn slightly on metrics driven by data  
11 and what data can tell us and so I want to turn to the hiring authorities  
12 especially. Eric discussed how we're implementing the program and obviously  
13 there is still discussion with the union as far as building out the final structure  
14 here.

15 I view the work force provision as kind of one of the  
16 preeminent provisions in the ADVANCE Act that essentially kind of gives the  
17 NRC additional tools and resources. You know there's a lot of direction, but  
18 researchers are important here as well. In terms of data, how are you  
19 approaching and examining how our work force looks today, especially given  
20 the environment that we're in directing us to do that? To identify the gaps in the  
21 expertise that can be targeted with this hiring authority?

22 MR. DILWORTH: Our work force shaping efforts, not work  
23 force shaping, but our analysis, economic forecast of the work force, advanced  
24 strategic work force planning which we will have initial results by June. We  
25 started around the November timeframe and we've been really pushing hard,

1 that's something that the agency has talked about for a little while now and  
2 we're going to finally get results. That's going to identify gaps where we really  
3 need to focus our critical hiring needs.

4                   You know with limited resources and funding, we need to be  
5 able to hire the right people in right places and fill those gaps. Our metrics on  
6 that will tell us a lot. Within that, you have metrics on retention, where we're  
7 hurting and then our retirement numbers and what we expect on those, so all of  
8 those things.

9                   Then another metric that we've talked about is being able to  
10 hire, time to hire, that's the other part that's been lingering out there, so our  
11 results and report out on that is for the end of this month. We will still start  
12 implementing those efficiencies whatever environment we're in and so when  
13 we're trying to execute these authorities, we'll be able to deal with those better  
14 than we've done in the past.

15                   COMMISSIONER MARZANO: I appreciate you bringing up  
16 the strategic or first planning. I think this effort is absolutely necessary as we  
17 navigate the directives that we've gotten from the administration to make sure  
18 that our work force continues to be able to execute our mission and respond,  
19 again, to the growth of the work that we see coming. Thank you, Mr. Chairman,  
20 I appreciate the opportunity.

21                   CHAIRMAN WRIGHT: Thank you, Commissioner Marzano  
22 and to my colleagues, thank you for your questions and to your answers as well  
23 from both panels. To paraphrase a recent Chair in our midst, it appears we've  
24 come to the end of our time together today.

25                   (Laughter.)

1 CHAIRMAN WRIGHT: As we conclude my first meeting as  
2 Chair, I want to thank my colleagues for their good wishes today and to  
3 Commissioner Hanson, I'd be remiss if I did not take a moment to thank you for  
4 your many years of service as Chair, so thank you so much.

5 It's been a great first Commission meeting on the ADVANCE  
6 Act. I look forward to many, many more of these. I want to thank everybody for  
7 their participation today. It was very informative and I've got even more  
8 questions we will follow up on later. Before we close, I want to ask my fellow  
9 commissioners if they have any comments they'd like to make. Commission  
10 Caputo?

11 COMMISSIONER CAPUTO: Thank you, Chairman Wright. I  
12 just want to say congratulations to you --

13 CHAIRMAN WRIGHT: Thank you.

14 COMMISSIONER CAPUTO: On your ascension to Chair. I  
15 look forward to all of these future meetings with you. I look forward to your  
16 leadership and supporting your goals and objectives so thank you for taking on  
17 that responsibility.

18 CHAIRMAN WRIGHT: Thank you so much.

19 COMMISSIONER MARZANO: Mr. Chairman?

20 CHAIRMAN WRIGHT: Yes?

21 COMMISSIONER MARZANO: If I may. Again, we want to  
22 thank the staff for all of the work and the preparation that went into today and  
23 the dedication to the new mission, thank you for that. Maybe some words of the  
24 why this mission statement is really reflecting and kind of bringing it back to a  
25 high level and that is to remind everyone that our success as an agency will

1 help the nation meet its energy needs, reduce harmful emissions, address  
2 climate change and strengthen our national and economic security. That is why  
3 our work is so important and, again, why the ADVANCE Act is so crucial to  
4 those goals. Thank you.

5 CHAIRMAN WRIGHT: Thank you. Any other comments?

6 Hearing none, we will adjourn this meeting.

7 (Whereupon, the above-entitled matter went off the record at  
8 12:16 p.m.)