

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON TRANSFORMATION AT THE NRC - SUSTAINING  
PROGRESS AS A MODERN, RISK-INFORMED REGULATOR

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WEDNESDAY,

JUNE 1, 2022

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The Commission met in the Commissioners' Conference  
Room, First Floor, One White Flint North, Rockville, Maryland, at 10:00 a.m.,  
Christopher T. Hanson, Chairman, presiding.

COMMISSION MEMBERS:

CHRISTOPHER T. HANSON, Chairman

JEFF BARAN, Commissioner

DAVID A. WRIGHT, Commissioner

ALSO PRESENT:

BROOKE P. CLARK, Secretary of the Commission

MARIAN ZOBLER, General Counsel

NRC STAFF:

DANIEL DORMAN, Executive Director for Operations

CAYLEE KENNY, Project Manager, Materials Rulemaking and Project  
Management Branch, Office of Nuclear Material Safety and

## Safeguards

TIM MOSSMAN, Acting EMBARK Venture Studio Managing Director, Office  
of Nuclear Reactor Regulation

ABBY OLARTE, Senior IT Program Manager, Financial System Branch,  
Office of the Chief Financial Officer

REBECCA RICHARDSON, Chief, Intelligence Liaison and Threat  
Assessment Branch, Division of Security Operations, Office of  
Nuclear Security and Incident Response

AIDA RIVERA-VARONA, Acting Deputy Assistant for Operations, Office of  
the Executive Director for Operations

JEFFERY WOOD, Reliability and Risk Analyst, Probabilistic Risk  
Assessment Branch, Office of Research

ANTONIOS ZOULIS, Branch Chief, PRA Oversight Branch

1 PROCEEDINGS

2 10:01 a.m.

3 CHAIRMAN HANSON: Good morning, everyone. I  
4 convene the Commission's public meeting on NRC transformation efforts.  
5 The last meeting on this subject was just about a year ago in June of 2021.  
6 I think we've got a great set of presentations lined up this morning, and I  
7 really look forward to the discussion.

8 We'll hear from our panel, some of which are here in the  
9 room with us in One White Flint in Rockville, Maryland; and the rest will join  
10 us online, I understand. We're going to hold questions until the end, and  
11 then we'll hear from the commissioners. But before I start, I'll ask if my  
12 colleagues have any remarks they'd like to make. Okay.

13 So with that, we'll begin the staff presentations, and we'll  
14 be kicked off by our Executive Director for Operations, Dan Dorman.

15 MR. DORMAN: Thank you, Chairman, and good morning,  
16 Chairman Hanson, Commissioner Baran, Commissioner Wright. Staff are  
17 pleased to have the opportunity this morning to highlight the progress and  
18 accomplishments that we have achieved during our transformation journey.

19 As we've discussed in previous meetings, the NRC has  
20 been building upon a 2019 Futures Assessment Report, which described  
21 four hypothetical future scenarios in which the NRC might be operating in the  
22 year 2030 and beyond. That report also flagged opportunities for improving  
23 how we do business, regardless of what the future brings.

24 So building on that report, using information we gathered  
25 from various efforts but especially the NRC's Futures Jam that we conducted  
26 within the NRC in June of 2019, we identified four focus areas: our people,

1 use of technology, risk-informed decision making, and innovation. These  
2 form the basis for our transformation journey, and within these four focus  
3 areas we identified eight initiatives and prioritized them to provide the  
4 necessary infrastructure to support our transformation journey.

5 Since then, most of these initiatives have been completed.

6 I'm happy to share with you that we are using the Be riskSMART framework  
7 and are more deliberately accepting well-managed risk in our decision  
8 making. In addition, we're using technology to work smarter, including  
9 using data analytics to highlight areas for regulatory attention and  
10 improvement. We are innovating our processes to make timely decisions  
11 that take into account different viewpoints and fully explored options. The  
12 one area that remains open is our desired agency culture initiative. The  
13 Agency Culture Team continues to work towards ensuring that behavioral  
14 norms and expectations that align with our leadership model and our vision  
15 of being a modern risk-informed regulator are incorporated into sustainable  
16 processes that will promote and sustain innovation well into the future.

17 Then we have worked and continue to work very  
18 deliberately to have a skilled, adaptable, and engaged workforce ready for  
19 the future that is before us today and out into the years ahead. In addition,  
20 we recently issued the NRC's Strategic Plan for fiscal years 2022 through  
21 2026. The strategic plan provides a blueprint for how the agency will plan,  
22 implement, and monitor the work needed to ensure the safe and secure use  
23 of radioactive materials. The strategic plan also includes a new focus on  
24 the agency's efforts to continue to foster a healthy organization and inspire  
25 stakeholder confidence.

26 Taken together, our transformation achievements and the

1 strategic plan goals will help ensure that the agency performs as a modern  
2 risk-informed regulator, is prepared for an evolving future, and is able to  
3 improve performance and achieve mission excellence in a diverse, inclusive,  
4 and innovative environment. And our objectives and key results, or OKRs,  
5 will keep us focused on ensuring that we sustain all of the progress we have  
6 made over the last few years. Last year's OKRs were focused on keeping  
7 our momentum for change going and transitioning our transformation efforts  
8 from the Office of the EDO to the other offices. We not only empowered the  
9 offices but empowered our staff to propose and implement innovative ideas.  
10 Today, we'll be providing some updates on our transformation journey and  
11 will discuss a few of the many achievements our offices have been making.  
12 Now I'd like to introduce my fellow presenters. Next slide, please.

13 First, Aida Rivera-Verona, who is currently serving as the  
14 Deputy Assistant for Operations in the Office of the Executive Director for  
15 Operations. Aida will discuss how we plan on continuing to drive and  
16 measure progress through the OKRs, as well as provide some information  
17 on the responses to a survey on transformation that was available to our  
18 external stakeholders from last September through March of this year.

19 She will be followed by Tim Mossman who is currently  
20 serving as Managing Director for EMBARK Venture Studios in NRR. Tim  
21 will discuss how we are using technology to inspire stakeholder confidence  
22 in the NRC by engaging stakeholders in NRC activities in an effective and  
23 transparent manner using high-quality data and information in our  
24 decision-making process. Specifically, he will discuss the external facing  
25 Mission Analytics Portal, or MAP-X.

26 Next, Caylee Kenny, who is a Rulemaking Project

1 Manager in the Office of NMSS and is currently on rotation in my office, will  
2 provide an update on some of the successes we have had with our  
3 rulemaking transformation efforts. These efforts are driving towards  
4 enhancing the quality and timeliness of our rulemaking products and further  
5 strengthening staff and stakeholder engagement.

6 Caylee will be followed by Becca Richardson, Branch  
7 Chief in the Office of Nuclear Security and Incident Response. Becca will  
8 discuss how we are effectively applying our Be riskSMART framework to the  
9 NRC's security oversight program and ensuring that we continue to achieve  
10 our important security mission.

11 The next speaker, Jeffery Wood, a Reliability and Risk  
12 Analyst in the Office of Nuclear Regulatory Research, will be discussing how  
13 we are using SPAR-DASH data dashboards to make risk results for  
14 operating nuclear power plants accessible to the NRC staff to better support  
15 risk-informed decision-making activities throughout the agency.

16 He will be followed by Antonios Zoulis, Branch Chief in the  
17 Office of NRR. Antonios will provide an update on the risk-informed  
18 process for evaluations, or RIPE, the NRC's streamlined licensing review  
19 process for low safety significance issues. Like so many other things we  
20 will discuss today, RIPE is a risk-informed process that helps inform our  
21 decision making while still meeting our important safety goals.

22 And, finally, Abby Olarte, a Senior IT Program Manager in  
23 the Office of the Chief Financial Officer, will discuss recent enhancements to  
24 the eBilling platform to provide our licensees an efficient and transparent  
25 process for understanding and paying their fees. This concludes my  
26 introductory remarks, and I'll now turn the presentation over to Aida.

1 MS. RIVERA-VARONA: Thank you, Dan. Good  
2 morning, Chairman and Commissioners. My name is Aida Rivera and for  
3 the last two and a half years, I have been leading the futures core team in  
4 the Office of the Executive Director for Operations, leading implementation of  
5 the overall NRC transformation strategy. Today, I'm here to talk to you about  
6 the methodology that we use for measuring our goals, as well as sharing  
7 some results of our first external survey. Next slide, please.

8 The staff selected the objective and key results, or OKR,  
9 methodology as a transformation performance management tool, as it has  
10 been used by highly-performing organizations to set challenges, ambitions,  
11 and aspirational goals with measurable results. OKRs are intended to be  
12 time bound, both to motivate near-term actions and in recognition of the fact  
13 that organization goals evolve in response of internal and external drivers.  
14 The staff has adopted an annual cycle where the EDO establishes the  
15 agency OKRs at the beginning of the calendar year, evaluates the progress  
16 at the end of the year, and then reformulates the OKRs for the following year  
17 based on new goals and priorities.

18 In 2020, the principal task was the development of  
19 transformation-enabling tools and as such, the agency OKRs were largely  
20 oriented to drive actions and measure progress towards this outcome. In  
21 2021, the focus was on widespread application of these tools across the  
22 agency and the OKRs for this year were reformulated to reflect this  
23 aspiration.

24 In developing the 2022 OKRs, we used the results from  
25 the 2021 to set aspirational goals for 2022 that will build and maintain and  
26 sustain the progress achieved in 2021. The 2022 agency OKRs are

1 intended to internalize and increase behaviors that will help sustain  
2 transformation progress. Our goal is that with routine practice, these  
3 transformation behaviors will become a habit, enabling the agency and its  
4 workforce to remain adaptable, agile, and able to meet operational  
5 challenges in the future. Next slide.

6                   OKR in 2020 were successful in driving and achieving the  
7 development of tools and resources to support innovation and improve  
8 decision making. We were able to complete significant actions to enable  
9 transformation to occur in years to come. Through the innovative team, we  
10 were able to issue the Be riskSMART decision-making framework; deploy  
11 the IdeaScale innovation platform; deploy the Career Enhancement and  
12 Employee Journey tools; and through the technology adoption initiative, had  
13 the capability to successfully transition to full-time telework during the  
14 pandemic through the implementation of Office 365 and other collaborative  
15 work tools. Next slide.

16                   Similarly, in 2021, agency-level OKRs were successful in  
17 producing the intended effect of encouraging greater familiarity and  
18 application of existing transformation tools across the agency. As a result,  
19 the agency experienced the following successes: All offices increased the  
20 application of the Be riskSMART framework to support key decision making  
21 in the technical and corporate areas. We saw more than half of the 582  
22 successes captured in IdeaScale resulted in process improvements. The  
23 continuing implementation of agency-wide office-level culture improvement  
24 activities resulted in a modest positive increase in the 2021 Agency Culture  
25 Pulse Survey. And we have seen greater development and application of  
26 data analytic tools to inform decision-making. Specifically, from a total of 16



1 key results in 2021, five key results were met and 10 were unmet. Although  
2 the agency did not achieve the aspiring goal for 10 of those 10 key results, in  
3 each of those we saw great progress in a broader use of the different tools  
4 and its relation to achieving our mission goals. Next slide.

5 One unique aspect that we added to our OKRs in 2021  
6 was to seek external stakeholder perspectives in our transformation efforts.  
7 To accomplish and measure this, the staff published a survey to seek  
8 external stakeholder perceptions on agency transformation efforts in the  
9 areas of risk, innovation, and technology. The survey was structured so  
10 that the external stakeholders can provide feedback regarding how these  
11 areas have directly contributed to the agency mission performance,  
12 information sharing, quality of decision making, and timeliness of decision  
13 making. This survey was open from September 13, 2021, to March 31,  
14 2022. NRC staff received a total of 81 survey responses from external  
15 stakeholders who responded to the survey from a broad variety of  
16 stakeholder groups and supported different business lines, as noted in this  
17 graph. Next slide.

18 From the review of these responses, we noted that most of  
19 the respondents were knowledgeable about the agency transformation  
20 efforts. Overall, respondents acknowledged that a lot of progress has been  
21 made, but more work can still be done. One of the areas where  
22 respondents felt great progress had been made is in the area of technology,  
23 with most impact in information sharing. Respondents felt great access to  
24 information through our public web pages and through the utilization of  
25 millions of archived documents. Respondents also acknowledged  
26 improvements in our mission performance in the areas of licensing and

1 rulemaking process. You will hear more about these efforts later today.

2 On the other side, some other survey respondents are  
3 seeking more awareness and understanding on how data analytics and risk  
4 information are being used in our decision-making. The staff continues to  
5 expand the use of data and risk insights, and we know that we will have  
6 opportunities in the future to interact with our external stakeholders on how  
7 we are doing this.

8 Today, you will hear several examples where the staff  
9 continues to apply risk insights in different programs and how we are  
10 developing tools to better access data that ultimately help our decision  
11 making. Next slide.

12 Using the survey responses, we were able to measure the  
13 three external perception OKRs related to risk, innovation, and technology.  
14 While we did not meet the 75 aspirational target, the survey results provided  
15 NRC staff with useful information and will serve as a baseline for measuring  
16 progress going forward. Thank you. And now I will turn it over to Tim  
17 Mossman.

18 MR. MOSSMAN: Thank you, Aida. Good morning,  
19 Chairman and Commissioners. I am Tim Mossman, the Managing Director  
20 of EMBARK Venture Studio in the Office of Nuclear Reactor Regulation.

21 EMBARK is a change catalyst within the agency, and the  
22 EMBARK team continues to work with NRC staff from many different offices  
23 to remove real and perceived barriers to innovation. We are focused on  
24 modernizing information technology tools and systems, improving business  
25 processes, enhancing access to data, and improving stakeholder  
26 experience. Today, I'm grateful to have the opportunity to discuss our

1 Mission Analytics Portal External initiative, also known as MAP-X. I want to  
2 note that the Office of the Chief Information Officer has been a very valuable  
3 partner in making this initiative a reality. Next slide, please.

4 For the past several years, the NRC has focused on its  
5 vision of being a modern risk-informed regulator. Endeavors such as  
6 MAP-X represent our efforts to achieve the modern part of that vision.  
7 MAP-X is the NRC's initiative to exchange data with our external  
8 stakeholders via web-based platforms. MAP-X is an externally-facing portal  
9 or website that licensees can use to submit relief requests; event notification  
10 worksheets; and later this year, licensee event reports.

11 The NRC is quite adept at collecting and storing  
12 documents from external stakeholders, which is essential for us to perform  
13 our mission and maintain healthy openness regarding our operations.  
14 However, documents are submitted in varying formats, such that harvesting  
15 data from them can be labor intensive. MAP-X focuses on having external  
16 stakeholders submit data, rather than documents, via the web portal.  
17 External stakeholders may submit numerical values, text, and/or selections  
18 from pre-populated menus, much like all of us do when ordering goods or  
19 services online. Obtaining data directly this way enables us to regularly  
20 feed our various internal systems and support data analytics, data  
21 visualization, and data-driven decision making.

22 MAP-X also presents the opportunity to share data with  
23 external stakeholders. In the future, we may extract data from our own  
24 systems and selectively display information, such as status of license  
25 amendment reviews, to appropriate external stakeholders. We believe  
26 MAP-X can ultimately become a one-stop shop for external stakeholders to

1 exchange data with the NRC. We see this as an advantage both to NRC  
2 staff and to external stakeholders. Next slide.

3 The advantages of MAP-X for the NRC are fairly  
4 straightforward. Receiving data in digestible form makes it much easier for  
5 us to sort and integrate information in our existing internal systems. It also  
6 creates opportunities to enhance data-driven decision making. For external  
7 stakeholders, the MAP-X system can be accessed from anywhere. Once a  
8 user is credentialed, they may use any computer to log in and interact with  
9 the system. MAP-X modules can incorporate auto-populated fields and  
10 data validation logic to minimize potential errors in submissions. Next slide.

11 MAP-X is still in the early stages of development. To  
12 date, we have focused on developing low-complexity modules to collect data  
13 from external stakeholders. Our initial module was for web-based relief  
14 requests, which has been available for approximately a year. In late  
15 January, we released a module for reactor licensees to submit event  
16 notifications. Next slide.

17 EMBARK has collaborated with NRR's Division of Operator  
18 Reactor Licensing to reach out to reactor licensees who have used these  
19 modules to solicit feedback. Early results on these modules has been  
20 mixed. We have had multiple users of the web-based relief request module  
21 but no one has yet used the system to submit an event notification.  
22 Regarding the web-based relief request module, we have some early  
23 adopters who have had very positive things to say about the system. We  
24 have also received very valid feedback regarding features of the system that  
25 stakeholders find challenging and/or have dissuaded their use of the system.  
26 We are working through a few challenges with the event notifications

1 module. Event notifications are required to be submitted on a relatively  
2 short time line, eight hours per the regulations, and they are often handled  
3 by reactor staff who are not the staff on site who currently have credentials  
4 to log into and use MAP-X.

5 In addition, our regulations in 10 CFR 50.72 require  
6 licensees to call the operations center with their event notifications. So the  
7 electronic submission of information via MAP-X will be more of an efficiency  
8 for NRC staff than licensee staff. We are actively working with OCIO and  
9 the MAP-X contractors to address the feedback we have received and  
10 augment our existing modules, as appropriate. We aspire to show our  
11 stakeholder community that we have taken their feedback seriously and  
12 demonstrate that it has resulted in beneficial changes to the system. Next  
13 slide.

14 As noted on an earlier slide, we are actively developing a  
15 MAP-X module to allow submission of licensee event reports, or LERs.  
16 LERs, like event notifications are required by regulation, but they are not  
17 required to be submitted on a tight time line. Licensees have 60 days, as  
18 opposed to eight hours. We are also currently reflecting on the feedback  
19 received on the existing modules and have been in discussion with multiple  
20 NRC offices regarding potential new modules to support different  
21 stakeholder communities. To date, our early modules have been focused  
22 on use by the reactor licensee community under the premise that they have  
23 more infrastructure to be able to adopt use of a new system, such as  
24 MAP-X. However, we recognize that there are a much greater number of  
25 materials licensees, which represent a potential for larger returns on our  
26 investment in collecting and processing data.

1                   We also recognize that marketing of new modules to  
2 potential users is critical to the success of this initiative. While we can  
3 readily demonstrate that NRC operations can be made much more efficient  
4 with the receipt of data via MAP-X, we need to ensure that our modules offer  
5 improvements in efficiency, effectiveness and/or overall user experience for  
6 our external stakeholders. This transformation will not happen overnight  
7 and will involve continued coordination among various NRC offices and our  
8 affected stakeholder communities. We value the lessons gained from our  
9 initial efforts, and we will be using that knowledge as we embark on  
10 developing future modules. Thank you. I will now turn it over to Caylee  
11 Kenny.

12                   MS. KENNY: Thank you, Tim. Good morning, Chairman  
13 and Commissioners. I am Caylee Kenny, a project manager from the  
14 Rulemaking Center of Expertise, or Rulemaking COE, in the Office of  
15 Nuclear Material Safety and Safeguards. Today, I will be providing an  
16 update on the improvements and successes within the rulemaking program  
17 since the inception of our rulemaking process transformation effort. Next  
18 slide, please.

19                   As a brief recap, in 2019, the COE self-initiated an effort to  
20 strengthen the agency's rulemaking process, focused on identifying  
21 opportunities to enhance the quality and timeliness of our rulemaking  
22 products, and further strengthen stakeholder engagement. We identified 15  
23 opportunities for enhancements and organized them into five key  
24 enhancement areas, as summarized in this graphic.

25                   We issued a publicly-available report about our plan in July  
26 2020 and have been implementing and refining the associated action. This

1 is a living and continuous effort. At this time, we have completed 13 of the  
2 original 15 initiatives and continue to integrate them into our daily work.  
3 Next slide, please.

4 We have achieved many successes as part of  
5 implementing these changes over the past two to three years. In terms of  
6 engagement, I'd like to highlight three improvement areas. First, the COE  
7 continues to focus on enhancing Agreement State interactions. We have  
8 increased opportunities for Organization of Agreement States, or OAS,  
9 members to provide input on issues raised in the petition for rulemaking in  
10 advance of a final action, which will inform staff recommendations to the  
11 Commission. The COE has received positive feedback from both the OAS,  
12 as well as from the NRC's Agreement State program staff about the  
13 progress in this area, and we will continue to look for ways to enhance  
14 engagement opportunities.

15 Secondly, COE and OGC staff have developed a training  
16 course to share efficient and effective approaches for addressing public  
17 comments received during the rulemaking process. This course focuses on  
18 improving the quality, accuracy, and consistency of NRC responses to  
19 comments and the associated documentation for the underlying regulatory  
20 decision and providing better documentation and communication of the  
21 bases for NRC's rulemaking actions. Overall, this is leading to increased  
22 public confidence in NRC's decision making and has greatly enhanced our  
23 ability to interact with the public in the rulemaking process.

24 Third, staff continues to create summaries of recent  
25 rulemaking actions, their impacts, and the innovations applied during the  
26 development process, as appropriate. These are posted to the public

1 website, which provides greater public awareness and transparency.

2                   In terms of timeliness, I'd also like to highlight three  
3 improvement areas. First, a significant portion of document development is  
4 spent in the concurrence process, and this has been identified as an  
5 important opportunity for improvement. Staff implemented division-level  
6 process changes, such as early alignment briefings and parallel  
7 concurrence, among many others, that go hand in hand with the recently  
8 implemented eConcurrence system, which allows for electronic concurrence,  
9 collaboration, integration with ADAMS, and the electronic signing of  
10 documents. The COE has been a first adopter of the system and we have  
11 already started training other NMSS staff on how to use key features, such  
12 as the collaboration tab, and how it supports the parallel concurrence path  
13 that we established. This is allowing us to continue to improve our  
14 concurrence process and we will look for additional efficiencies as we gain  
15 experience with the eConcurrence system.

16                   Secondly, the COE has streamlined processes at the  
17 pre-rulemaking stage. Specifically, instead of routinely beginning  
18 rulemaking with a regulatory basis, the staff now evaluates whether one is  
19 needed case-by-case and provides the recommendation regarding the need  
20 for a regulatory basis to the Commission. The COE also reevaluated the  
21 need to issue a final regulatory basis when one is initiated. Typically, staff  
22 now provides the Commission a summary of the results of early stakeholder  
23 engagement in the proposed rule. This change is expected to save  
24 approximately six to nine months from the overall rulemaking schedule.

25                   Third, staff completed a pilot using agile project  
26 management concepts in the petition for rulemaking process. The pilot



1 proved successful by minimizing the risk of significant redirection late in the  
2 development of the project and by improving timeliness, allowing the Petition  
3 Review Board to be held 1.5 months sooner than the Milestone B. The  
4 COE is continuing to explore the use of agile methods in rulemaking and is  
5 adopting the use of an executive level project sponsor, a key agile concept,  
6 for the development of an upcoming proposed rule. Next slide, please.

7                   We are sustaining progress through incremental  
8 improvements, incorporation of the original efforts into our daily work, and  
9 we will take a more targeted approach to future transformation efforts. In  
10 order to curb innovation fatigue, we are focusing on activities that will have  
11 the most impact to staff and our stakeholders. Specifically, the COE is  
12 looking back at our original initiatives to see if we produced the gains we  
13 thought we would. For example, staff will perform an assessment of the  
14 improvements made to our concurrence process to determine if time frames  
15 have been shortened and the number of people on concurrence has been  
16 streamlined. We will consider how we can enhance the positives of the  
17 eConcurrence system and use it to continue to simplify the concurrence  
18 process and realize further benefits. Next slide, please.

19                   Overall, these innovations have provided positive  
20 outcomes and results. We received encouraging feedback in several areas,  
21 including on the use of (audio interference) professional perspectives, has  
22 enhanced collaboration and added efficiencies to each phase of the  
23 concurrence process. The use of agile project management concepts,  
24 especially the use of a project sponsor, has shown to be beneficial to  
25 communication, alignment, and quick decision making. And we have  
26 received positive feedback on the opportunity for Agreement States to

1 participate in working groups and review products earlier in the development  
2 process.

3 Rulemaking is, by design, a deliberative process bound by  
4 statute and other legal constraints. The COE uses risk-informed processes  
5 and adopts IT and other modern innovations whenever possible within the  
6 strictures of the federal rulemaking environment. These recent incremental  
7 improvements directly align with the agency's strategic plan objective and  
8 associated strategies regarding stakeholder confidence and will provide  
9 stakeholders with requirements that are well designed on the most optimal  
10 schedule possible.

11 Our rulemaking innovation efforts are expected to mature,  
12 grow, and adapt over time. NRC's Rulemaking COE is committed to  
13 continuously strengthening the agency's rulemaking process and serving as  
14 a model of federal rulemaking excellence. I will now turn it over to Becca  
15 Richardson. Thank you.

16 MS. RICHARDSON: Thank you, Caylee. And good  
17 morning, Chairman Hanson, Commissioner Baran, and Commissioner  
18 Wright. For those that don't know me, I'm Becca Richardson, Chief of the  
19 Intelligence Liaison and Threat Assessment Branch in the Office of Nuclear  
20 Security and Incident Response. Having worked on the Be riskSMART  
21 initiative since 2019, it is an honor to be here today to share how my office  
22 has been utilizing the Be riskSMART framework in our decision making.  
23 Next slide, please.

24 As you know, the NRC has a long history and firm  
25 foundation in risk-informed decision making that includes many successful  
26 applications of the risk triplet. While we have continuously improved how

1 we use risk insights to make better informed decisions to meet our important  
2 safety and security mission, risk-informed decision making was not  
3 consistently applied across the agency or used for all types of decisions.

4                   This slide summarizes the key steps of the Be riskSMART  
5 framework. I'm not going to walk through each step here today, but I'm  
6 happy to answer any questions you may have. I did want to highlight the  
7 importance of the first step, though; that is to be clear about the problem.  
8 The problem could range from a simple binary question that one faces on a  
9 daily basis to a more complex decision involving multiple individuals or  
10 organizations, such as how to enhance a process to more fully realize the  
11 NRC's principles of good regulation. I also wanted to note that the  
12 framework does not revise or change existing requirements or criteria, such  
13 as those supporting oversight or licensing decisions. Rather, it serves as  
14 an umbrella to increase consistency, awareness, and usability of existing  
15 risk-informed approaches. Next slide, please.

16                   The Be riskSMART framework recognizes the multifaceted  
17 nature of risk and helps staff consider those systematically and in a  
18 transparent manner, whether those risks are technical, programmatic,  
19 reputational, information technology, human capital, or others. By doing so,  
20 it supports consistent approaches in applying risk insights for all NRC  
21 decisions and gives NRC staff confidence in accepting well-managed risk in  
22 its decision-making without compromising the NRC's mission.

23                   The structured framework of Be riskSMART gives us  
24 confidence that we are adequately considering what we need to, even when  
25 there's uncertainty about what could happen or how likely it is. What we  
26 have found is that it has really improved conversations for us when working

1 through challenges we face. It serves as a good platform for discussion  
2 between staff on challenges, how to best address those challenges, and  
3 why. And this improves conversation on both sides. It has encouraged  
4 better conversations by tackling problems together in a systematic approach.

5 By using this Be riskSMART framework in NSIR, we have  
6 been able to evaluate problems in a way that when discussing them with  
7 others, we are able to explain our perspective on a given issue clearly and  
8 concisely. This way, any differences, particularly as a result of the inherent  
9 uncertainty in some of the information we use, can be quickly identified and  
10 resolved. On the next few slides, I will briefly walk through three examples  
11 that demonstrate how NSIR has applied this framework in both security  
12 oversight and policy. Next slide, please.

13 As we know, conducting effective oversight supports  
14 NRC's critical safety and security mission. The COVID-19 public health  
15 emergency presented some unique challenges to completing some of our  
16 inspections that support this oversight. The Be riskSMART framework was  
17 a perfect tool to address this challenge in NSIR for completing the tri-annual  
18 NRC-evaluated force-on-force inspections. For those that don't know what  
19 our force-on-force inspections are, these are performance-based inspections  
20 to test the licensee strategy for defending against the design basis threats,  
21 and they involve a significant amount of people in close proximity in order to  
22 properly control, observe, and perform the inspection.

23 Through use of the framework, the staff was able to  
24 develop a plan to conduct the inspections while balancing the health and  
25 safety of both our inspectors and site personnel. As part of this effort, the  
26 staff also developed a matrix that weighed the principles of good regulation

1 for each of the options identified in the framework. We have been able to  
2 reuse this framework as a model to help us risk inform our decisions in the  
3 areas of efficiency, openness, clarity, reliability, and independence. In this  
4 case, using the Be riskSMART framework not only help staff identify options  
5 to continue to provide effective oversight during the public health emergency,  
6 but they also identified additional options that can be considered to better  
7 inform the future of the security program. Next slide, please.

8 In 2019, the NRC Office of the Inspector General  
9 challenged the staff to consider how cybersecurity inspections could be  
10 more efficient and more performance based. The Be riskSMART  
11 framework supported the staff's evaluation to address this challenge by  
12 weighing the risk and benefits for multiple options for the acceptance of  
13 performance metrics from licensees in advance of inspections to inform  
14 evaluation of cybersecurity program effectiveness and for improving the  
15 inspection process efficiency. By using the Be riskSMART framework, the  
16 staff were able to determine a way for licensees to voluntarily submit  
17 cybersecurity performance metrics in advance of an inspection. This  
18 alleviates some on-site inspection needs and results in a more efficient  
19 inspection overall. The staff also developed an option in the inspection  
20 procedure to allow for performance-based testing of the licensee's  
21 cybersecurity architecture and controls. Next slide, please.

22 Lastly, in 2020, staff provided the Commission with  
23 SECY-20-0070, Technical Evaluation of the Security Bounding Time  
24 Concept for Operating Nuclear Power Plants. In this Commission paper, we  
25 explored ways to provide credit for operator actions, including the use of flex  
26 equipment and law enforcement response at operating nuclear power plants.

1     The staff were able to apply the Be riskSMART framework throughout the  
2     Commission paper to guide the staff's assessment of the challenges and  
3     developing viable approaches to provide this credit. For example, each of  
4     the staff's recommendations for providing additional credit for elements, such  
5     as law enforcement response and flex equipment, consider factors that may  
6     impact the likelihood and consequences of an attack. As a result, the  
7     reasonable assurance of protection time, or RAPT, was established. RAPT  
8     is an eight-hour time frame that recognizes existing layers of protection, both  
9     safety and security, that work together to support the site's protective  
10    strategy. Industry stakeholders have expressed that the RAPT concept  
11    adds a greater level of regulatory clarity because it provides a consistent  
12    framework for targets in development. It also enables licensees to refine  
13    protective strategies to focus on the most risk significant target sets, while  
14    continuing to maintain physical protection of the site. And it risk informs  
15    force-on-force exercises by focusing on target sets that are within the  
16    eight-hour RAPT. This ensures licensees are continuing to protect all  
17    front-line systems and supporting systems with a prompt functional failure  
18    that could result in core damage before the eight-hour RAPT.

19                   Thank you for the opportunity to present today. And with  
20    that, I'll turn it over to Jeffery.

21                   MR. WOOD: Thank you, Becca. Good morning,  
22    Chairman and Commissioners. I am Jeff Wood, and I am a Reliability and  
23    Risk Analyst in NRC's Office of Research. I'm going to be discussing the  
24    SPAR-DASH project. Next slide, please.

25                   The SPAR-DASH project was developed to make risk  
26    assessment results accessible to the NRC staff to help support our

1 risk-informed decision-making activities for our operating reactor programs.  
2 We believe this tool will have many useful applications for our inspectors and  
3 license reviewers for operating reactors. What we want to achieve with this  
4 project is to make risk information accessible to the staff in an easy-to-use  
5 and interactive dashboard format, support communication of risk insights,  
6 and support our Be riskSMART framework. As we're continuing on our path  
7 to becoming a modern, risk-informed regulator, we recognize that having  
8 access to the right risk information is important, and we need to deliver those  
9 risk results to the staff in an innovative way. Next slide, please.

10                   The approach we've taken with SPAR-DASH is to develop  
11 a series of data dashboards that summarize risk results from the agency's  
12 probabilistic risk assessment, or PRA models. SPAR-DASH leverages  
13 NRC's existing PRA tools, the SPAR models and Sapphire software; and  
14 having these independent risk assessment tools are very important for  
15 supporting our risk-informed regulatory programs, and it allows us to be  
16 creative in new ways to analyze the results like we're doing with the  
17 SPAR-DASH project.

18                   The SPAR models are available for the staff to support  
19 using risk in their work, and there are many staff that use these models in a  
20 routine basis. However, we want to make risk information broadly available  
21 to support our reactor oversight and licensing activities, and we recognize  
22 that there are some barriers to getting more staff using these complex risk  
23 tools. Using these models requires set up and installation of software. It  
24 requires specialized knowledge and training to generate and interpret  
25 results. With SPAR-DASH, we bypass these barriers to provide easy  
26 access to useful risk results.

1                   The approach we've taken with SPAR-DASH is to first  
2     extract the key risk results from the models, then we developed data  
3     processing tools to summarize the results in a visual and interactive format.  
4     We've automated much of the process. We are handling results from 68  
5     site- and plant-specific SPAR models and collecting results in different file  
6     formats. We have a few thousand individual file inputs to our process, and  
7     our data processing tools allow us to officially collect the key information,  
8     format the data, and update the dashboard visuals. This is really an  
9     innovation in how we are using the results of our risk models.

10                  And this project began as a summer student project in the  
11     summer of 2020. And with a small team, we were able to develop the  
12     process and the tools, and SPAR-DASH was published for internal use in  
13     January 2022. The end result is a visual and interactive data dashboard. It  
14     allows the staff to quickly see risk results and help to focus their work on the  
15     most risk-significant issues. Next slide, please.

16                  So here we see an example of events contributing to a  
17     plant's core damage frequency, and this gives our license reviewers,  
18     inspectors, and other risk users a quick snapshot of a plant's risk profile and  
19     can help to focus users on the types of events that are most risk significant  
20     for a specific plant. Types of risk results that we include in SPAR-DASH  
21     allow the staff to rank important contributors to a plant's risk, to assess risk  
22     associated with different events and types of hazards, to consider off-normal  
23     conditions, and to perform plant-to-plant comparisons of risk results.

24                  SPAR-DASH also includes embedded links to guidance  
25     documents. Users can click on a button right in the tool to access reference  
26     material. We are using Nuclepedia, the NRC's knowledge management



1 tool. And here we have references to define the PRA-related terms and  
2 types of results that are used in the dashboard and guidance on how to  
3 interpret results. This provides a very efficient tool for the staff to develop  
4 an understanding of risk. SPAR-DASH can be used as one input into our  
5 decision making, along with other analyses, technical bases, and accounting  
6 for uncertainties. And SPAR-DASH itself is a tool, it's not a process, but it  
7 can be used to support many of our risk informed processes, such as Be  
8 riskSMART or our integrated risk informed decision making for license  
9 reviews, and many other NRC risk informed programs.

10 While SPAR-DASH still requires careful interpretation  
11 when implying risk results in our work, the accessibility and easy to use  
12 visual format provides a great starting point for gaining risk insights and  
13 focusing on areas for further investigation and questioning. Next slide  
14 please.

15 The SPAR-DASH tool can support improved efficiency in  
16 incorporating risk into our operating reactor licensing and oversight work  
17 activities. And here we see an example of a comparison of core damage  
18 frequency results for different hazard categories, such as fires and seismic  
19 events, and users can sort and filter the display to focus on the types of  
20 results that relate to their review area or the question they're trying to  
21 answer.

22 You see several possible applications for the staff to use  
23 SPAR-DASH, and some examples include planning and prioritizing activities  
24 to support license amendment reviews, assessing emergent issues and  
25 generic safety issues, risk-informed selection of systems and components  
26 for inspection, and it provides an independent tool for comparing to

1 licensee-provided risk results.

2                   And since the initial launch of SPAR-DASH at the end of  
3 January of this year, we've already seen some applications of this tool. We  
4 have staff that have used this to help inform their licensing reviews, to gather  
5 information for dispositioning of proposed generic safety issues, and to help  
6 with risk-informed assessment of an emergent issue.

7                   SPAR-DASH is currently available internally for the staff to  
8 use. And although it's developed for internal use, we think that external  
9 stakeholders can also benefit from the staff's efficient use of risk in many of  
10 our reactor licensing and oversight activities. We feel that SPAR-DASH is  
11 going to be a valuable tool in the agency's continued risk-informed  
12 development. Thank you. And I will now turn it over to Antonios Zoulis.

13                  MR. ZOULIS: Thanks, Jeff. Good morning, Chairman  
14 and Commissioners. I'm Antonios Zoulis, the Branch Chief of the PRA  
15 Oversight Branch in the Division of Risk Assessment in the Office of Nuclear  
16 Reactor Regulation.

17                  Today, I will be discussing with you a new and innovative  
18 approach in dispositioning very low safety significant licensing issues using  
19 our existing regulatory structure and regulations. This new process helps  
20 both licensees and the NRC to focus its time, attention, and resources on  
21 issues of greater safety significance. Next slide, please.

22                  In an ever-changing environment with plant shutdowns and  
23 reduced resources, it was imperative that NRR develop ways to address  
24 low-safety significant issues effectively and efficiently in this dynamic  
25 environment. As such, staff were tasked to identify transformative  
26 approaches in meeting our mission using resources commiserate with the

1 safety-significant issue, while leveraging ways to enhance the use of risk  
2 insights and risk-informed decision making in our licensing reviews and  
3 activities. Thus, the idea of the risk-informed process for evaluations, or  
4 RIPE. Next slide, please.

5                   Initially, NRC staff were focused on addressing issues that  
6 were very low safety significant but not clearly within the licensing basis.  
7 Those issues were addressed by the Very Low Safety Significance Issue  
8 Resolution process, or VLSSIR. It quickly became apparent that there was  
9 also a subset of issues that could be of low safety significance and that were  
10 clearly within the licensing basis. In 2021, as an extension of VLSSIR, the  
11 NRC developed an innovative and novel process, the risk-informed process  
12 for evaluations, to resolve very low safety significant issues commiserate  
13 with the risk significance using existing regulations under 10 CFR 50.12 and  
14 50.90.

15                   The idea for RIPE was born from my work done in support  
16 of the risk prioritization initiative and my observation of licensee use of an  
17 integrated decision-making panel, or IDP. An IDP leverages a  
18 multi-disciplinary team to assess an issue using criteria that is consistent  
19 with NRC's key principles of risk-informed decision making under Regulatory  
20 Guide 1.174. The RIPE process allowed staff and licensees to develop a  
21 method that is objective, scrutable, and repeatable to identify issues that are  
22 very low safety significance. It leverages both risk insights and other key  
23 engineering principles to evaluate the issue against a defined set of criteria.

24                   I'd like to note that when we presented RIPE to the HRS,  
25 the committee members were very supportive and complimentary of the  
26 process and its novel approach in determining the safety significance of

1 issues. In developing a streamlined review process, we leveraged  
2 previously-approved risk-informed initiatives, such as TFTF 505 and 425, to  
3 determine the quality of the PRA information that would support a  
4 risk-informed review. That coupled with the licensee's IDP evaluation of the  
5 other key engineering principles together support our integrated  
6 decision-making process, which helps characterize the issue and thus inform  
7 the level of review for a RIPE submittal. Next slide, please.

8                   The licensee is using PRA information from their  
9 previously-approved risk-informed initiatives coupled with an approved IDP  
10 process: define the issue, evaluate the issue using safety impact  
11 characterization guidance developed by staff, identify any risk management  
12 actions as applicable, and then assess potential impacts of the change.  
13 Once that is completed and the issue is identified to have minimal safety  
14 impact, the licensees will then submit the application under the RIPE  
15 process to the NRC for a streamlined review.

16                   RIPE is a significant change in how the staff conducts their  
17 licensing reviews. Only the acceptance review of a RIPE application is  
18 conducted by a cross-divisional staff team. If the application is accepted  
19 under RIPE, then staff from my branch will conduct the streamlined review of  
20 the application, which is commensurate with the fact that the review is of a  
21 low safety significant issue. Next slide, please.

22                   Why RIPE? RIPE focuses the NRC and licensee  
23 resources on the most safety significant issues. It addresses very low  
24 safety significant issues in an efficient and particular manner consistent with  
25 NRC's principles of good regulation. It leverages existing regulations and  
26 risk-informed initiatives, and it also incentivizes the further development and

1 use of probabilistic risk assessment models and risk-informed applications.

2 Next slide, please.

3 Earlier this year, staff received the first-of-a-kind exemption  
4 request using RIPE. While there were challenges associated with this  
5 review, the staff accepted and reviewed the application using the RIPE  
6 process within eight weeks and under 100 hours of review time. Staff are in  
7 the process of leveraging lessons learned from the first RIPE submittal,  
8 which will take the form of future planned workshops on risk-informed  
9 decision making that will demonstrate real-world examples that use risk  
10 insights to inform a review. The workshops will center on what level of  
11 review is needed for low safety significant issues with a focus on  
12 defense-in-depth, safety margins, et cetera.

13 Staff are also evaluating guidance updates to provide for  
14 additional clarity to staff that leverages the lessons learned from the first  
15 RIPE review. These initiatives will facilitate positive change management to  
16 support the staff's future views of application using RIPE. Next slide,  
17 please.

18 Change is hard and regardless of what process is being  
19 implemented for the first time, effective change management is important.  
20 Incorporating risk information in our everyday activities is not always easy.  
21 However, the more opportunities that we provide to staff in understanding  
22 RIPE and the benefits of the process, as well as having additional  
23 opportunities and experience in using RIPE, we believe that the staff's  
24 confidence in implementing RIPE will increase.

25 Without the review structure provided by RIPE, the review  
26 of this low safety significant issue would most likely have taken more time

1 and resulted in considerable more hours of fee-billable review time. With  
2 RIPE, we overcame the challenges and took one big step toward our journey  
3 of becoming a modern risk-informed regulator. RIPE constitutes a  
4 significant step forward in NRC's endeavor to advance risk-informed  
5 decision-making in our regulatory processes.

6 And plans are underway to expand the use of RIPE.  
7 Currently, staff have completed work to allow technical specifications to be  
8 within the scope of RIPE reviews. Updated guidance for expanding the use  
9 of RIPE for technical specifications was issued last month. Furthermore,  
10 staff are participating in workshops and public meetings with industry to  
11 support their development of a RIPE-like process that could be used to  
12 determine the safety significance of generic issues.

13 RIPE ensures that staff focus their time, attention, and  
14 resource on the most safety significant issues, thus ensuring the safe  
15 operation of the commercial operating fleet, while also protecting the health  
16 and safety of the public and of the environment. With the successful  
17 implementation of the first RIPE review, NRC staff continue to demonstrate  
18 regulatory certainty and confidence in our regulatory process and pave the  
19 way for potentially more low safety significant issues to be reviewed in an  
20 efficient and effective manner consistent with our principles of good  
21 regulations. I will now turn it over to Abby Olarte. Thank you.

22 MS. OLARTE: Great. Thank you, Antonios. Good  
23 morning, Chairman and Commissioners. My name is Abby Olarte from the  
24 Office of the Chief Financial Officer and I serve as the project manager for  
25 the NRC's electronic billing application, otherwise known as eBilling. Next  
26 slide, please.

1 eBilling is a public facing online platform through which  
2 licensees can receive and view their NRC invoices. It originally launched in  
3 FY20 and was a key initiative in the effort to streamline and digitize NRC's  
4 license fee billing process, which is consistent with the agency meeting its  
5 vision as a modern risk-informed regulator.

6 NRC sends roughly 3800 invoices to our licensees  
7 annually. Prior to the implementation of eBilling, the generation of these  
8 invoices was an intricate and heavily manual process, requiring NRC staff to  
9 print large volumes of paper invoices, stuff them into envelopes, and mail  
10 them to thousands of licensees.

11 In order to modernize this process and improve the billing  
12 experience for our licensees, the NRC developed the eBilling application in  
13 the course of one year. Recognizing the importance of taking a  
14 customer-centric approach to build the application, we engaged with a group  
15 of licensees throughout the development process, obtaining iterative  
16 feedback as the application was built. This approach significantly  
17 contributed to the success of the eBilling application, as the insights gained  
18 from this collaboration shaped the functionality and user interface of the  
19 system. I'd like to now highlight some of the benefits that eBilling provides  
20 to our licensees. Next slide, please.

21 Prior to the implementation of eBilling, licensees needed to  
22 wait several days to receive their paper invoice in the mail. By receiving  
23 their invoices electronically, licensees now have additional time to review  
24 their invoices and submit payment before the due date. Another benefit that  
25 eBilling offers is its ability to send out automated email alerts to licensees.  
26 Licensees are notified immediately when activity has occurred on any of their

1 invoices, including when a new invoice is issued or when a payment has  
2 been processed. These alerts are completely configurable by the user,  
3 allowing them to choose the types of activity that they want to receive  
4 notifications for.

5           The eBilling application also provides licensees with a  
6 user-friendly dashboard that gives them as snapshot of their invoice statuses  
7 and the total amount owed. Keeping licensees aware of these types of  
8 activities in a timely manner not only allows them to know the status of their  
9 invoices at any given time, but it also reduces the risk of erroneous  
10 payments being made to the NRC.

11           Another key feature that benefits our licensees is the  
12 digitalization of the small entity application form. Licensees have the ability  
13 to submit an application to qualify as a small entity, allowing them to pay  
14 reduced fee amounts to the NRC. Prior to eBilling, the small entity  
15 application form was mailed to the licensees to be filled out manually and  
16 returned to the NRC. With eBilling, the small entity application is now  
17 available in an online form.

18           Details pertinent to the invoice, such as the docket number  
19 and invoice number, are automatically defaulted for the user, reducing the  
20 amount of data entry required from the licensee. Additionally, making the  
21 small entity application available online decreases the number of instances  
22 where NRC staff are unable to read the handwritten information provided on  
23 the paper small entity application. NRC is also able to indicate whether a  
24 small entity application is approved or rejected in eBilling, which  
25 automatically sends a notification to the licensee of the decision.  
26 Incorporating the small entity application into eBilling has gone a long way



1 into streamlining the application and decision process. Next slide, please.

2                   Now, as the eBilling application continues to evolve and  
3 mature, there are two new features I'd like to bring your attention to, as they  
4 also provide some additional benefits to our licensees. When eBilling was  
5 initially developed, the one feature that licensees requested the most was  
6 that they wanted to be able to see their invoice details in Excel format so that  
7 they can perform their own analysis. It was understandably difficult to work  
8 with a paper invoice. The feature was incorporated in the initial rollout of  
9 the application. However, eBilling was recently enhanced to introduce more  
10 robust reporting capabilities in which licensees can filter invoice data across  
11 a user-specified period of time for specific dockets, cost activity codes,  
12 enterprise project IDs, and fee categories for which they were billed. The  
13 detailed results can be exported to Excel where the user is provided with the  
14 raw detail, as well as a pre-bill pivot table.

15                  Providing licensees with their invoice details in an  
16 easily-consumable manner, address the key pain point that they previously  
17 expressed, and these new reporting features were implemented to make it  
18 even easier for them to extract their invoice data. This increases the  
19 transparency that we have with our licensees and places more accountability  
20 on the oversight work performed by the NRC program offices.

21                  Lastly, we recently integrated Part 170 charge accruals  
22 into eBilling. In order to provide licensees with an idea of what their Part  
23 170 charges are as a billing quarter progresses, NRC previously sent  
24 spreadsheets of accrued charges to those licensee organizations that  
25 requested the data. These spreadsheets would be sent via email to each  
26 individual licensee organization by NRC staff. eBilling was recently

1 enhanced to incorporate the Part 170 accruals into the application, allowing  
2 licensees to view and download their Part 170 accruals directly from eBilling.  
3 By making the Part 170 accruals available to the licensees online, the  
4 amount of time and effort on NRC's part to put together spreadsheets and  
5 email the licensees is significantly reduced and licensees are able to  
6 receive the data the instant that it becomes available.

7 eBilling has facilitated the digital transformation in our  
8 licensee fee billing process. Not only does eBilling significantly improve the  
9 billing experience for NRC's licensees, but it also strengthens stakeholder  
10 confidence in the agency's regulatory processes, as it provides easier  
11 access to the details behind the oversight work that the NRC performs. We  
12 continue to look for other innovative opportunities to make the invoicing  
13 process easier for our licensees. Next slide, please.

14 User adoption of eBilling has steadily increased over time,  
15 but we do hope to see additional growth and enrollment. Higher user  
16 adoption will allow all of us to realize the full benefits of transforming and  
17 modernizing the invoicing process. If a licensee is not yet enrolled in  
18 eBilling, we highly encourage them to consider enrolling. We've recently  
19 implemented an online registration feature so that the process is easier for  
20 an organization to sign up. To do so, licensees can navigate to the URL  
21 that you see there on the screen. But should you have any questions at all,  
22 you can also submit a support request through the eBilling website.

23 Thank you. And I'll now turn it back to Dan Dorman.

24 MR. DORMAN: Thank you, Abby. And thank you to all  
25 of the presenters, to all of the staff involved in these initiatives, as well as so  
26 many other initiatives throughout the agency. Next slide, please.

1                   As you can see, we have done and are doing a lot and are  
2                   focused on sustaining the progress we have made over the last several  
3                   years to respond to the dynamic environment in which we operate. Our  
4                   experience over the last few years, including our ability to transition to  
5                   mandatory telework in response to the pandemic, has shown us how  
6                   essential transformation is in preparing us for a complex and uncertain  
7                   future.

8                   We will continue to monitor our external environment,  
9                   adapt and innovate as needed, in order to ensure we are effectively and  
10                  efficiently achieving our important safety and security mission. In addition,  
11                  we established 2022 objectives and key results with the goal of sustaining  
12                  and pushing forward our transformational efforts and aligning those efforts  
13                  with our agency strategic plan. We will carry forward the valuable lessons  
14                  we have learned throughout our transformation journey to best position  
15                  ourselves for a successful future.

16                  As we carry our transformation journey forward, we will do  
17                  so with many new employees who we are recruiting to join the agency. This  
18                  will be one of our major challenges in the years ahead, and we are laser  
19                  focused on ensuring that we have a high-performing, diverse, engaged, and  
20                  flexible workforce with the skills needed to carry out the NRC's mission now  
21                  and in the future.

22                  We will continue to work towards realizing our desired  
23                  agency culture, a culture that supports creativity and diversity in all its forms,  
24                  appreciates the need for change, and helps us to sustain all that we have  
25                  achieved during our transformation journey so far.

26                  This concludes our presentation, and we look forward to

1 your questions.

2 CHAIRMAN HANSON: Thanks very much, Dan.  
3 Thanks, everyone, for your presentations. We'll begin questions this  
4 morning with Commissioner Wright.

5 COMMISSIONER WRIGHT: Thank you so much, Mr.  
6 Chairman. And thank you, each of you, for your presentations today and  
7 the updates of where we are with everything, and I really personally look  
8 forward to hearing from the staff on this every year, especially hearing from  
9 those staff who are actually putting boots on the ground to get it done.

10 I've got a few questions that I'm going to ask, but I can't get  
11 to everybody, you know. I just can't. So Antonios and Abby and Becca,  
12 I'm not going to have any questions for you today, but I may reach out to you  
13 separately as we get further into this, but thank you for your presentations. I  
14 found them very informative.

15 Caylee, I don't have a question for you, but I do want to  
16 call out something that was in your presentation on slide 21, believe it or not,  
17 right in the middle, you had a bullet there that highlighted that rulemaking is  
18 a deliberative process; there is still room to innovate. I think that's a critical  
19 message and something that really resonates with me because innovation  
20 and transformation, they don't mean excluding the public or limiting  
21 stakeholder feedback or introducing shortcuts to anything to our  
22 deliberations or anything like that. So it does mean looking at our  
23 processes to see how we can do things better and I really appreciate your  
24 message. Thank you for your work in this area and look forward to hearing  
25 more and more good things from you. So thank you.

26 So now I'm going to turn over to the questions. So, Dan,

1 I'm going to start with you. You know, a critical part of the transformation  
2 effort is defining our goal, right, and having a common vision. The staff has  
3 indicated that its efforts to have each office and region formulate their own  
4 organization-specific OKRs here, objectives and key results, that support the  
5 agency-wide OKRs as a way to accomplish that goal, right? So I wanted to  
6 get an update on this from you. And have the OKRs been reviewed and  
7 compared to each other, and are you seeing alignment the way you thought  
8 you might?

9 MR. DORMAN: Thank you, Commissioner. So, you  
10 talked about the goal, and you used the word vision, and one of the first  
11 things that I did as EDO was to work with the senior leadership team to lay  
12 out a vision that as a modern risk informed regulator will achieve mission  
13 excellence in a diverse, inclusive, and innovative environment with a highly  
14 skilled, adaptable, and engaged workforce.

15 So, you can find all of the focus areas of transformation  
16 embedded in that vision, and there's room for all of the organization to find  
17 itself and come on board with that, and the key to that is the OKRs. And so  
18 we lay out OKRs at the EDO level for the agency, and then share those.  
19 We did that in December time frame, shared those out to the offices in the  
20 January time frame, and each of the offices then built out their OKRs for the  
21 year using that framework to ensure that we are aligning to that vision.

22 But how we achieve, as you heard from so many offices  
23 today, and there are so many offices that you didn't hear from today, that are  
24 -- how they work their work into that vision is a little different in every  
25 program of the agency, but they're all aligned to that goal.

26 COMMISSIONER WRIGHT: Good, I appreciate your

1 answer on that. Because with so many parts that are moving, you just want  
2 to be sure, and it sounds like you're confident that they are working towards  
3 a common purpose.

4 MR. DORMAN: You did ask if we review that, those  
5 OKRs do come back to the EDO, and the EDO's transformation team looks  
6 through and makes sure that we are achieving that alignment.

7 COMMISSIONER WRIGHT: Okay, thank you. So, the  
8 NRC has acknowledged the success in transformation really comes down to  
9 a change in our culture, and I agree with that. We need to embrace new  
10 ways of doing things, reward innovation, break down barriers, things like  
11 that. You noted that the agency culture team is continuing to work to align  
12 behavior of norms, and expectations with our leadership model. Can you  
13 give me an example, or two in this area, and whether they are having the  
14 desired effect?

15 MR. DORMAN: Yeah, so there's a number of things that  
16 fall under the umbrella of culture; historically, we've talked a lot about the  
17 Federal Employee Viewpoint Survey, and the focus on employee  
18 engagement, and environment that we have for our employees. We also  
19 have periodically, our Office of Inspector General does a safety culture and  
20 climate survey, and a safety culture review.

21 The initiative under transformation was focused on what  
22 we called the desired agency culture, and it's a culture that promotes and  
23 enables innovation in the organization. And so that initiative, all of those  
24 elements of culture are all part of the agency culture transformation. We did  
25 establish a culture team within the office of the EDO to support the offices in  
26 achieving all of those elements of culture, but particularly the desired agency

1 culture.

2 We did a baseline survey of the staff in 2020 for the  
3 desired agency culture, and it included both a piece that we're looking at,  
4 what is the culture relative to certain measures, as well as where would we  
5 like to be to have this innovative environment? So, then we have that yard  
6 stick to measure against as we go forward. And we did a follow-on survey  
7 in 2021, we showed some progress toward that desired agency culture, but  
8 we still have work to do.

9 So, the culture team in the EDO's office works with change  
10 agents across the agency, and I'm really excited by the number of people  
11 who raised their hand to be a part of this effort, and support the offices in  
12 their culture initiatives as well. And identifying again, as you move across  
13 the agency, there are different areas of priority, and focus in enhancing the  
14 culture. And so that works across the agency, and that's the initiative that  
15 we have open because changing culture takes time.

16 COMMISSIONER WRIGHT: Right, and I did pick up on  
17 that takes time theme earlier in the presentations. So, that brings me to this  
18 question; I think it's an important question, because alignment in your  
19 culture, next to initiatives, are really important. There have been some  
20 concerns raised both internally, and externally as you know, that there are  
21 different cultures at headquarters, and at each of our regions, right? With  
22 very different risk appetites evident in some of our new processes, like Be  
23 riskSMART, and VLSSIR. I mean obviously it can lead to different  
24 applications of the processes, and different outcomes for licensees on  
25 similar issues. And I'm interested in your perspective on this and have you  
26 found this to be true, or do you see consistency in application of these

1 processes at headquarters and across the regions?

2 MR. DORMAN: I think there's always a challenge in a  
3 large organization. There's different cultures among the offices in  
4 headquarters. It's not a question of where you are, it's a question of where  
5 you identify, and what behaviors and norms you identify with. So, we're  
6 always working to align the whole agency around those standards. I think  
7 it's most visible for some of our licensees who have equities that are subject  
8 to oversight by different regions.

9 And so they perceive perhaps differences there. And  
10 that's a continuous effort for the program offices working with the regions to  
11 ensure that we are aligning across the agency, consistent with risk informed  
12 decision making on the most important decisions that we engage. We have  
13 management review boards of various types to bring issues to multi office  
14 decision makers to make sure that we're applying the standards of the  
15 agency in a consistent way where it's most important.

16 COMMISSIONER WRIGHT: Thank you. And I've got  
17 about a minute, and a half left. And being a southerner, ladies first, so Tim,  
18 I'm going to apologize to you and to Jeff for not being able to get to a  
19 question for you. So, it was good to see you and thanks for your  
20 presentation. And I appreciate that the staff sought external feedback on  
21 how our transformation efforts are going. It's important that we not only  
22 self-monitor our efforts, but get feedback from stakeholders, right? I took a  
23 look at the dashboard survey from this external feedback, and there were a  
24 couple of things. It looked like the stakeholders rated us above seven on  
25 information sharing and quality of decision making, and mission  
26 performance. But they gave us a six on timeliness for decision making.



1 So, could you provide your perspectives - do you agree with that? On the  
2 results, and what, if anything, are we doing to improve the timeliness of our  
3 decision making?

4 MS. RIVERA-VARONA: Thank you for the question. So,  
5 yes, so we did acknowledge, we see that from the external stakeholders,  
6 they don't see the improvement of the timeliness of our decision making from  
7 our transformation efforts. We don't know what's driving that, we are  
8 looking for opportunities to engage with our external stakeholders to learn  
9 more, why is that. And finding ways like this Commission meeting that  
10 provide us the opportunity to showcase some of the enhancements we have  
11 made, and how that has impacted our timeliness of decision making. So,  
12 we look forward for more opportunities to learn more and to showcase how  
13 we can do better.

14 COMMISSIONER WRIGHT: Thank you so much. Mr.  
15 Chairman?

16 CHAIRMAN HANSON: Perfect timing. Thank you,  
17 Commissioner Wright. And thank you all for your presentations this  
18 morning, I thought this was a really great discussion, and a great way to kind  
19 of showcase some really significant successes that the agency has had. I  
20 keep talking about transformation in my RIC speeches, because it's  
21 genuinely really important to me.

22 I agree, I think it was Margie Doane who said that  
23 transformation is really about making better regulatory decisions, and I  
24 completely agree with Dan, that it's also about preparing for a range of  
25 possible futures. Because we really do have, I think -- I don't want to say a  
26 significant amount of uncertainty, but just a range of possible outcomes kind

1 of facing the agency depending on where industry goes, and how industry  
2 develops.

3                   And I think folks are coming in to talk to each of us  
4 Commissioners about those possible range of futures, and I look to  
5 transformation as being really a key enabler in the agency's ability to meet  
6 those future challenges. And I want to emphasize too, that I continue to  
7 think of transformation as going hand in hand with the hiring initiative that  
8 Dan is spearheading in collaboration with Mary Lamary, and others in the  
9 agency for a couple of different reasons.

10                   In a lot of ways, transformation has been collateral duty for  
11 a lot of people within the agency. They do their regular jobs, and then they  
12 do transformation and innovation activities on top of that. And gee, wouldn't  
13 it be nice to get a few more people in the door to relieve that burden? I  
14 think Dan heard that acutely from some of the branch chiefs earlier in the  
15 year when he met them, about how busy and occasionally overwhelmed  
16 they are. And we don't want that situation to continue for any real length of  
17 time. So, let's get some more folks in here. But also I see transformation  
18 as a defense in depth for future hiring initiatives. Hiring is hard right now.  
19 We know that there are vendors and utilities, and others who are hiring like  
20 crazy too. We're competing with those entities for smart folks.

21                   And I think there are a lot of really good reasons to come,  
22 and work at the NRC; innovation, and our culture, and the importance of our  
23 mission being among them. But our ability to transform and focus on the  
24 most mission critical tasks, to focus on the most risk significant and safety  
25 significant areas is also really important in the event that not all of the people  
26 that we want to have come through the door actually do, down the road.

1                   And that's going to be a significant journey, although let me  
2 just say I understand we're having some success in that area, too, that I  
3 want to recognize, and celebrate. So, I think that's all to the good. I  
4 wanted to touch on just a couple of things.

5                   I think Aida, it was in your presentation, and I think Caylee  
6 had something in hers as well about institutionalizing, and sustaining these  
7 innovation efforts, and not having change fatigue. I think that was Caylee's  
8 turn of phrase that I thought was really eloquent. And that the  
9 transformation doesn't become just kind of change for change sake, right?  
10 That we're really trying to accomplish, tackle concrete problems, and  
11 achieve concrete objectives. And with some of these things, recognizing  
12 also that with things like the future's jam, and other initiatives that we had, it  
13 followed the 80/20 rule, right? We got a lot of low hanging fruit in that 583  
14 initiatives that we've seen, and now we're starting to move into a phase  
15 where we're tackling the harder stuff. Although I think things like MAP-X,  
16 and RIPE and VLSSIR, MAP-X, SPAR-DASH, that was another one, sorry I  
17 said MAP-X twice, are really moving ahead, and tackling some of these  
18 bigger things. Rulemaking is another really great example of that.  
19 Increasing participation in eBilling is -- that first 30 percent, probably pretty  
20 easy, right? Those are the people who wanted to do this already. Moving  
21 that up is going to be harder, it's going to have that kind of curve that levels  
22 off. And so, I want to encourage everyone to just kind of keep moving  
23 ahead and keep thinking about this. Believe it, or not, I do actually have a  
24 question, so I'll start with Aida.

25                   So, Aida, in SECY-22-0027, we got some of the  
26 transformation performance measures. I want to appreciate that those

1 performance measures and the OKRs that we've had around transformation  
2 are aspirational. We set big goals. I mean 90 percent of -- I've got it here.  
3 90 percent of surveyed staff by NRC during 2021 agree that during the past  
4 year the agency's use of technology, data analytics has strengthened our  
5 decision making, and regulatory processes.

6 Well, we didn't meet that because we had 81 percent,  
7 which is pretty good. So, let's recognize that. Even as I think it's important  
8 that we have some stability in OKRs, right, so that we're measuring across  
9 time, and we're seeing progress, right? As a runner, I appreciate the idea  
10 that sometimes direction is more important than speed on some of these  
11 things. But maybe, Aida, can you give me a couple of examples? I guess  
12 where we're taking a couple of OKRs that are in that red zone, so to speak,  
13 right, were not met, and we're having some management attention on those,  
14 and whether that's in Be riskSMART, or some other areas.

15 MS. RIVERA-VARONA: So, yes, thank you for the  
16 question. So, for 2022, we do take a look at that, and we didn't have -- for  
17 2021, we didn't have any baseline. So 2021 became our baseline for the  
18 2022. And the way that we are focusing in 2022, some of them are -- you  
19 know, we are aspiring for a ten percent increase in some of those survey  
20 results so that we can see a progress, but you know we are managing some  
21 of that as well.

22 For other OKRs, we turn to, as you said institutional  
23 analyzing some of them. And so the action changed from the use of the  
24 tool to more embedding some of how we are using the tool in our processes.  
25 So, even though we didn't need it in 2021, we are taking an additional step  
26 to make it more meaningful going forward for the agency.

1 CHAIRMAN HANSON: Okay, thanks. Well, and when it  
2 comes to Be riskSMART, and getting that training out, I think at the end of  
3 2021 we were at 53 percent, and we really want to be -- I think we've made  
4 the training at this point mandatory, but maybe you or Dan, can just talk  
5 about institutionalizing Be riskSMART thinking across the agency.

6 I had an interesting conversation with someone from  
7 Region III earlier this week about how Be riskSMART kind of provides a  
8 baseline in a way. It's kind of a risk thinking 101. But then you have really  
9 mature practitioners, you have senior managers, you have corporate support  
10 folks. How are we kind of varying our message or our training for those  
11 folks so that they get more comfortable in applying risk informed decision  
12 making?

13 MR. DORMAN: Just to be clear, for the folks who are not  
14 practitioners?

15 CHAIRMAN HANSON: Right, not practitioners, exactly.  
16 Some of the people like Antonios, and some of the folks, these guys are kind  
17 of black belts. But there are others who maybe are not, or there are senior  
18 managers who are going to look at it in a different way.

19 MR. DORMAN: Right. So, I think the key is that Be  
20 riskSMART is that 101 framework, so we can apply it to any, I think it was  
21 touched on by Becca that it can apply to any decision making, it's  
22 reputational risk, it's litigative risk, it's technology investment risks. So, it  
23 can be applied to any framework, and that's why we've made it mandatory  
24 through the end of this year for everybody to get the training on it.

25 But then it's a question of really management leading the  
26 way, and saying hey, we're engaging a decision here, how have we applied

1 the riskSMART framework to it? And the great thing about the Be  
2 riskSMART framework is it doesn't have to be hugely resource intensive.  
3 Yes, we have these very advanced models for core damage frequency,  
4 that's appropriate for the decisions we're making there.

5 But this can be a relatively simple framework, but it causes  
6 you to consciously think about the risks inherent in the decisions you're  
7 considering, both to inform how much effort is worth spending on this  
8 decision given the insight of the associated risk, as well as the risk insights  
9 associated with the decision itself.

10 So, I think as we get more people trained up on it, and we  
11 become more intentional about using it broadly in everything that we do, that  
12 will build in that institutional muscle memory.

13 MS. RIVERA-VARONA: Can I add something more?

14 MR. DORMAN: Please.

15 MS. RIVERA-VARONA: Also the Be riskSMART team,  
16 even though they completed their work as a team, as an initiative, they  
17 continued to also conduct work with ambassadors across the agency. So,  
18 they continued to have workshops, they continued to have sharing of the use  
19 of Be riskSMART in different aspects, that helps staff get comfortable,  
20 understand, and use it in their daily aspects as well.

21 CHAIRMAN HANSON: Okay, very good, thank you.  
22 Commissioner Baran?

23 COMMISSIONER BARAN: Thanks. Well, thank you all  
24 for your presentations, and for the progress you've made on so many  
25 innovation efforts. Jeff, thanks for spending some time talking about  
26 SPAR-DASH. The SPAR models are so important to NRC's independent

1 oversight role, and the staff is really, I think, taking their usefulness to a  
2 whole new level with SPAR-DASH. It's great to see that we're leveraging  
3 those models to gain risk insights for our licensing, and oversight work.

4 I know that the staff is just starting to take advantage of  
5 this new tool, but can you give us a couple of specific concrete examples of  
6 how the staff is using SPAR-DASH?

7 MR. WOOD: Yes, thank you for the question,  
8 Commissioner Baran. We do have a few examples, it's still a relatively new  
9 product, but we did have recently a risk analyst in NRR perform an  
10 evaluation of an emergent issue using their risk informed process. And this  
11 was related to the Office of Inspector General's audit of the NRC's oversight  
12 of counterfeit and fraudulent parts.

13 And the evaluation used SPAR-DASH to quickly gain some  
14 insights on the potential risk impacts associated with some of the systems  
15 that could be impacted. And we also have an ongoing proposed safety  
16 issue related to emergency diesel generator protected trips, and we're using  
17 SPAR-DASH to gather some risk information about the operating reactor  
18 fleet in general. And we have several anecdotes of our resident inspectors,  
19 and senior resident inspectors viewing the tool. No details on specific  
20 applications, but we know it's getting a lot of looks.

21 COMMISSIONER BARAN: That's great. The risk  
22 insights from SPAR-DASH are only going to be as good as the underlying  
23 models of course, which I think are pretty good. What's the staff's view  
24 about the current frequency of SPAR model updates? There have been  
25 resource challenges in the past, but should we be updating our SPAR  
26 models more often than we are now?

1                   MR. WOOD: Yes. Well, our current program for  
2 updating the models provides sufficient support to meet our needs for the  
3 reactor oversight program and our other risk informed program. We are  
4 performing six model updates with an extensive bench marking, and a  
5 comparison against licensee PRA results. We're performing six of those a  
6 year. But we also address model changes as needed, on an as needed  
7 basis. We're making multiple updates every month in support of our  
8 different risk informed programs.

9                   But we do recognize an increase in the use of the SPAR  
10 models, and especially with things like SPAR-DASH, we're seeing increased  
11 needs. So, we are pursuing increasing the number of models that are  
12 updated with that significant bench marking exercise. We're planning to  
13 increase that number that are performed each year.

14                  We're looking at working with our contractors at the Idaho  
15 National Lab and having more NRC staff involved in that process over the  
16 next few years. This would reduce the number of those ad hoc model  
17 changes that we do, and overall improve our efficiency. And it will also be a  
18 great knowledge management development tool for our staff that are  
19 involved.

20                  COMMISSIONER BARAN: Good, that's good to hear.  
21 Caylee, I think the improvements to the rule making process are important  
22 and positive. Even with these improvements, rulemaking can still take a  
23 very long time at NRC, I think we all realize that. We recently got a  
24 rulemaking plan that's pretty typical. It included a time estimate of 57  
25 months, if there were no unexpected delays. So, that's about five years,  
26 which if we're being honest with ourselves, is just too long. That kind of



1 schedule usually involves 16 months to develop a draft proposed rule, and  
2 16 months after the public comment period to develop a draft final rule.  
3 Those 16 months don't include the public comment periods themselves.  
4 We've seen other agencies prepare draft proposed rules, draft final rules in  
5 more like a 12 month period, even for complex rule makings.

6 Is the staff looking at ideas for getting to those kinds of  
7 shorter time frames, so that an entire rule making can be completed in two,  
8 to three years without doing anything that shortens public comment periods?

9 MS. KENNY: Absolutely, thanks for the question,  
10 Commissioner Baran. Yeah, so as I mentioned, our original intent was to  
11 really take a full holistic look at our rulemaking process, and we did actually  
12 benchmark with four other government agencies. So, we gained a lot of  
13 ideas from them, and a lot of our original initiatives kind of sprung from the  
14 lessons learned, should I say, from the processes that these other agencies  
15 use.

16 So, as we continue to institutionalize, and add a lot of  
17 these improvements that we've made into our processes, and procedures,  
18 they become more ingrained in our day-to-day culture, I think we'll see those  
19 time frames start to come down a little bit. As I mentioned, that regulatory  
20 basis efficiency is expected to save us about six to nine months from any  
21 given rule making depending on the complexity. That was an idea taken  
22 from the benchmarking of those other government agencies. Certainly the  
23 concurrence process, we can do some work there. As I mentioned, we are  
24 going to be doing a review of the improvements that we've made so far to  
25 see kind of where we are at compared to our baseline prior to starting our  
26 initiative. Certainly we can make some more streamlining there in terms of

1 who is actually on concurrence, versus who needs to be there for  
2 awareness.

3 Making sure our partners are well aligned, and involved  
4 earlier on to preclude any potential rework or show stoppers or whatnot.  
5 And as we continue to make use of the agile concept, we know we've seen it  
6 in play in the PRM process, where that was ahead of schedule, and it's been  
7 really helpful in terms of maintaining alignment, and moving things on  
8 throughout the product development process at a smoother pace.

9 So, certainly we are consistently and always looking for  
10 ways to do so. We know we can do better. We do think we will see  
11 continued improvements as these process changes are more  
12 institutionalized, and whatnot. And then we're trying to make it a safe space  
13 for staff to voice their new ideas, and ingrain innovation into our culture. So,  
14 we're always hoping that they'll bring up new ideas for us to tackle as  
15 potential improvements.

16 COMMISSIONER BARAN: Good. Well, I'm glad to see,  
17 and hear that the effort overall is making progress, and that the effort to  
18 streamline the concurrence process is moving along. I'm looking forward to  
19 hearing are we seeing meaningful reductions in the length of time to get  
20 through concurrence, as you all look more at that.

21 Antonios, you mentioned that the staff is looking at  
22 extending RIPE to technical specification. Can you talk a little bit about  
23 that? What's the staff envisioning in this area? Would it be for  
24 administrative items, or are you thinking more broadly than that?

25 MR. ZOULIS: Thanks for the question, Commissioner  
26 Baran. Right now, what we're looking for, you still need to meet the criteria

1 of the RIPE process, essentially the issue still needs to be well represented  
2 by the probabilistic risk assessment of the plant licensees. And kind of  
3 initially we didn't think the tech specs low safety significance issues, so  
4 essentially we excluded that from the RIPE Process.

5 But then we were thinking that there could be opportunities  
6 where a licensee may come in for an exemption, for example, where the  
7 system may be in tech specs. So, they would come in for the exemption  
8 and then also the license amendment change in one fell swoop under the  
9 RIPE process. So, that's kind of where we were picturing it. Not for  
10 administrative changes at this point. We're still trying to ensure that the risk  
11 is well defined, and it's truly a low safety significance issue. Another  
12 example could be perhaps a focus, the tech spec IOT extension for some  
13 system maybe that is, that for some reason has a higher IOT than the risk  
14 represents in the plant. So, maybe they would come in for something of  
15 that nature.

16 COMMISSIONER BARAN: A lot of the equipment  
17 addressed by tech specs provides defense in depth. How do we make sure  
18 that RIPE doesn't result in any kind of whittling away of defense in depth at  
19 nuclear power plants over time? Is the staff going to build something into  
20 the process that's going to look at the cumulative effect of RIPE changes to  
21 tech specs and RIPE changes generally?

22 MR. ZOULIS: That's a great question. So, fundamental  
23 to the RIPE process is to evaluate cumulatively. I think I mentioned that in  
24 my discussion. So, another beauty of the RIPE process, it's consistent with  
25 our application Reg Guide 1.174. And in Reg Guide 1.174, you need to  
26 consider cumulative impacts, so that needs to be an evaluation the IDP must

1 consider, as well as defense in depth. So, when we're looking at these  
2 issues, you need to ensure there's minimal impact to defense in depth, and  
3 the risk is low. So, this is truly a risk informed process. It's not just about  
4 risk, it's about all the other elements of the risk informed decision making  
5 process.

6 COMMISSIONER BARAN: Good. Tim, I see that MAP-X  
7 effort is very valuable. It sounds like we're still at the stage right now where  
8 it's mostly a portal for applicants, and licensees to provide the agency with  
9 information. When do we think stakeholders will be able to obtain more  
10 information through the portal, and how do we make sure the information  
11 provided by NRC through MAP-X is available to all stakeholders, and not just  
12 a subset of stakeholders?

13 MR. MOSSMAN: So, we're working right now with a  
14 variety of internal stakeholders in the NRC about what kind of modules they  
15 would see as valuable. I think based upon the lessons learned we've gotten  
16 to date we want to be very careful about the next modules we take on board.  
17 I think even though I would always say I want more, more, more, I want to  
18 go as fast as we can on this.

19 I think it's kind of important that we went out at the pace we  
20 did. We were able to put out some relatively simple modules, learn some  
21 lessons. I think with those lessons now, I think we can make a little more  
22 informed decisions about what modules we take on going forward. Given  
23 EMBARK's size, we are a change catalyst, so it's very important for us to  
24 work with offices. Whether if it's in the materials side, whether that's the  
25 NMSS MSST, if it's the reactor side, we have very valuable partners in  
26 DORL. It's going to be important for us to hear from them, and be working

1 through them from the stakeholder communities, what kind of information  
2 both internally we want to share, what the stakeholder communities want to  
3 receive.

4 We've got some ideas of things that would be relatively  
5 straightforward to share out. Still working on the prioritization of that. The  
6 other thing that's kind of important inherent in that, is to make sure that the  
7 databases we're pulling from are kind of -- the data is collected, and  
8 maintained in a way that it's going to be reliable information we put out.

9 In terms of putting stuff out to a wider variety of  
10 stakeholders, like more public stuff, we're not even constrained by MAP-X to  
11 do that. We've talked internally about a number of different opportunities,  
12 and in our weekly pitch meetings at EMBARK, we talk about some of the  
13 things we still publish reports for because we've been doing it for half a  
14 century.

15 And there might be opportunities to -- let's do a web  
16 representation of that report, and we can put that information out in near real  
17 time, and maybe get rid of the need to publish a NUREG every year doing  
18 that. But we also need to make sure that again, the database that data is  
19 kept in is not only sufficiently robust, but controlled in a way that we don't  
20 inadvertently put something out. But we're looking forward to those  
21 opportunities going forward. I think that's definitely an area EMBARK wants  
22 to be squarely involved in to work with our different internal stakeholders to  
23 make more information available.

24 COMMISSIONER BARAN: Great. Well, I want to take  
25 just one more minute, and close with a couple of kudos for the staff. First,  
26 the eBilling effort that Abby talked about is a terrific development. I

1 remember sitting here a few years ago listening to how our billing process  
2 was slow, it was prone to errors because it required so much manual effort.  
3 We were using traditional mail service. Everyone agreed that it needed to  
4 improve, but that it would take a lot of work. And OCFO, OCIO, the staff  
5 generally did that work, it resulted in a huge improvement, and the staff  
6 really deserves recognition for that. It's really a great accomplishment.

7 In the realm of Be riskSMART, I was struck by a very  
8 positive example of using risk to get to a result that was protective of safety  
9 recently. And it's one that Becca mentioned actually a little bit in her  
10 presentation. The staff was looking at how to make cyber security  
11 inspections more efficient. And one idea was to reduce the size of the  
12 inspection team if a licensee voluntarily submitted performance metrics in  
13 advance. The staff evaluated that idea, realized the potential for significant  
14 negative impact on the inspection team if contractor support was dropped,  
15 and decided not to reduce the team size. Instead the decision was that  
16 inspectors would look at voluntary performance metrics, which could make  
17 the inspection more efficient, but they weren't going to reduce the  
18 capabilities by shrinking the team. I think that was the right outcome, and  
19 it's great to see the decision making process consider all the pros, and cons  
20 of a potential change, so good job. Thanks.

21 CHAIRMAN HANSON: Thank you, Commissioner Baran.  
22 Since you took a few minutes extra, which I think is a great thing, and I think  
23 we could go all day probably on this, and have a good time. I did want to  
24 give Commissioner Wright an opportunity to make any closing remarks, or  
25 ask any remaining questions, or what have you.

26 COMMISSIONER WRIGHT: You know what they say

1 about a politician and a microphone, right? No, I want to echo what  
2 Commissioner Baran said. I'm always amazed, I'm a huge EMBARK fan - I  
3 promote that anywhere I go. I'm really very proud of everything that the  
4 staff is doing, and having done it in this environment even, I mean that's  
5 even bigger and better. So, thank you for the opportunity.

6 CHAIRMAN HANSON: Thank you, Commissioner Wright.  
7 And thank you both for your questions. I think we just kind of barely  
8 scratched the surface here. There's a lot going on. In case folks hadn't  
9 noticed, I agree with Colin Powell, who said that optimism is a force  
10 multiplier. I think we heard a lot this morning to be optimistic about. I did  
11 want to give -- in the spirit of both my colleagues, I did want to give a shout  
12 out.

13 There's a new, I don't know what to call it, a video blog.  
14 I'm so behind the times. But Taylor Lamb is taking her formidable  
15 enthusiasm for innovation and transformation, and whereas in case any of  
16 you had missed her TAYtalks around the Agreement State program and so  
17 forth, she's now pointing that at transformation. She's got an innovation  
18 education series that she started. And the first episode is out with Niav  
19 Hughes Green and Audrey Thomas. I think it dropped sometime this week,  
20 but it's a whole conversation about IdeaScale, about the power of IdeaScale  
21 for capturing transformation and innovation ideas. I thought it was a really  
22 good conversation and want to applaud them for exploring these other  
23 avenues, and vectors for engaging staff. And for encouraging continued  
24 enthusiasm around this even as -- and I think IdeaScale continues to be a  
25 really great tool that the staff can use. I think Taylor made a really good  
26 point in that conversation when she said, hey, look, if you've got an idea, and

1 your manager is onboard, just go do it. You don't have to put it in  
2 IdeaScale. I mean that's a good place to capture it, and track it, and lots of  
3 other things, it's a great tool. But don't let that constrain you. I think that it's  
4 really important, and that's just one area in which I think we all continue to  
5 just be impressed by what a creative and engaged workforce can  
6 accomplish. And as I think Commissioner Wright just said, in a pretty tough  
7 environment in the last two years, and yet it's driven a lot of creativity as  
8 well.

9                               So, I'm just really glad this morning to have the opportunity  
10 to celebrate some of these successes and I continue to be proud of what the  
11 agency has done. And with that, thank you, we're adjourned.

12                               (Whereupon, the above-entitled matter went off the record  
13 at 11:36 a.m.)