

UNITED STATES

NUCLEAR REGULATORY COMMISSION

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STRATEGIC PROGRAMMATIC OVERVIEW OF THE OPERATING
REACTORS AND NEW REACTORS BUSINESS LINES AND RESULTS OF
THE AGENCY ACTION REVIEW MEETING

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WEDNESDAY,

SEPTEMBER 30, 2020

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ROCKVILLE, MARYLAND

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The Commission met in the Commissioners' Hearing Room
at the Nuclear Regulatory Commission, One White Flint North, 11555
Rockville Pike, at 9:00 a.m., Kristine L. Svinicki, Chairman, presiding.

COMMISSION MEMBERS:

KRISTINE L. SVINICKI, Chairman

JEFF BARAN, Commissioner

DAVID A. WRIGHT, Commissioner

CHRISTOPHER T. HANSON, Commissioner

ALSO PRESENT:

ANNETTE VIETTI-COOK, Secretary of the Commission

MARIAN ZOBLER, General Counsel

NRC STAFF:

DAN DORMAN, Deputy Executive Director for Reactor
and Preparedness Programs

HO NIEH, Director, Office of Nuclear Reactor
Regulation (NRR)

MAGGIE TOBIN, Senior Resident Inspector, North Anna
Power Station, Region II

STEPHANIE COFFIN, Deputy Director, Office of Nuclear
Regulatory Research

SHAUN ANDERSON, Managing Director, EMBARK Venture
Studio, NRR

KEVIN WILLIAMS, Director, Division of Materials
Safety, Security, State, and Tribal Programs,
Office of Nuclear Material Safety and
Safeguards

CHRIS MILLER, Director, Division of Reactor
Oversight, Office of Nuclear Reactor
Regulation

MIKE KING, Director, Vogtle Project Office, Office
of Nuclear Reactor Regulation

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9:00 a.m.

CHAIRMAN SVINICKI: Well, good morning, everyone, and welcome to the Commission's meeting today.

The Commission meets in public session this morning to update on strategic considerations associated with a very large programmatic area here, the operating reactors business line, as well as the new reactor business line, including a highlight on recent activities taken to modernize and improve the nuclear reactor safety program.

We will hear from two staff panels. And on these topics, we traditionally would have had a separate meeting for this important reactor safety program, the operating reactors and the new reactors activities.

And at a subsequent convening on another day, we would have covered the second panel we will hear from today, which is again the NRC staff, however, the topic is a briefing of the staff to the Commission on this year's annual Agency Action Review Meeting.

Which is a very significant undertaking by the NRC staff, looking very broadly at the safety and security performance of the operating reactor fleet and also materials licensees, both looking at trends and things that are happening with Agreement State licensees as well as NRC direct materials licensees.

So, both topics are of great importance to the Commission, but we had a period of suspending, in light of the public health emergency, our public meetings as a Commission, so in the interest of kind of coming current

1 again and then taking on new topics and reviving our meeting agenda, we've
2 combined these today.

3 But I just wanted to remark upon the fact that it then
4 becomes a rather breathtaking set of activities that are being discussed, that
5 are among, I think, some of the most safety significant undertakings of the
6 NRC staff and the Commission. So, we will have a brief break in-between
7 hearing from each of the staff panels.

8 And very, very appropriately, we will be led off by Mr. Dan
9 Dorman, who is the deputy executive director for Reactor and Preparedness
10 Programs, who has a portfolio on both of these topics.

11 Before we turn to that, I'll just quickly survey and see if any
12 member of the Commission wanted to make any opening remarks? Okay,
13 with that, Dan, we will have you lead off for the first staff presentation. Thank
14 you.

15 MR. DORMAN: Thank you and good morning, Chairman
16 Svinicki and Commissioners.

17 The staff are pleased to be here today to provide a strategic
18 programmatic overview of the operating and new reactor business lines. The
19 staff in these business lines are doing incredible work, which we're proud to
20 be showcasing here today.

21 And as the Chairman indicated, in the second panel, we'll
22 discuss a summary of the results of the Agency Action Review Meeting.

23 The new and operating reactor business lines play key roles
24 in our safety and security mission.

1 To take advantage of the natural synergies between these
2 two business lines, at the beginning of this fiscal year we merged the Office of
3 New Reactors, formerly known as NRO, and the Office of Nuclear Reactor
4 Regulation, or NRR, in October of last year. This merger into a single office
5 has strengthened both business lines.

6 The combined office has achieved a great deal since the
7 last strategic programmatic overview of these business lines in 2018, including
8 the issuance of the first subsequent license renewals at two sites, laying the
9 foundation for safety-focused and efficient regulatory reviews of advanced
10 non-light water reactor technologies, including delivering on actions mandated
11 by the Nuclear Energy Innovation and Modernization Act, or NEIMA, and
12 completion of the NuScale small modular reactor design certification review.
13 Next slide, please.

14 During this panel, Ho Nieh, the director of NRR, will talk
15 about these and other accomplishments, as well as the vision and strategic
16 priorities for the nuclear reactor safety program and preparations to regulate
17 the nuclear technology of the future.

18 After Ho, Maggie Tobin, the senior resident inspector at the
19 North Anna site in Virginia in Region II, will provide a boots on the ground
20 perspective on our resident inspectors are maintaining their safety focus in a
21 dynamic environment.

22 The Office of Nuclear Regulatory Research plays a key role
23 in supporting the NRC's safety and security missions, and Stephanie Coffin,
24 the deputy director of research, will provide an overview of how the NRC is

1 benefitting from research partnerships with the Department of Energy,
2 international institutions, universities, and others, to better position ourselves
3 to review new nuclear technologies.

4 And finally, Shawn Anderson, the managing director in
5 NRR's EMBARK Venture Studio will discuss EMBARK's role in driving
6 advances within the business lines and building a culture that embraces
7 innovation. The improvements that EMBARK is setting in motion will help us
8 more efficiently carry out our mission and communicate the important work we
9 do with our stakeholders.

10 As discussed during the recent Commission briefings on the
11 agency's response to the COVID-19 public health emergency and on
12 transformation at the NRC, NRC staff have exhibited exemplary dedication
13 and focus while continuing to innovate and transform to execute our important
14 safety and security mission. Next slide, please.

15 This concludes my opening remarks and I'll turn the
16 presentation over to Ho Nieh.

17 MR. NIEH: Good morning, Chairman. Good morning,
18 Commissioners. Thank you, Dan, for the introduction.

19 And so, thank you for the opportunity to brief you on the
20 nuclear reactor safety program and my remarks this morning will focus on the
21 vision for the program, priorities, some recent successes, as well as what
22 we're doing to effectively regulate technologies in the future. May I have the
23 next slide, please?

24 I'd like to first start by acknowledging that all NRC offices

1 contribute to the success of this program, both corporate and technical.

2 A prime example of the great teamwork that goes on in this
3 program was evident during our response to the COVID-19 public health
4 emergency, and as Dan mentioned, the Commission was recently briefed on
5 the overall agency response. We had a chance to see what we did in the
6 reactor program in these times here.

7 And as head of NRR, I would like to personally thank the
8 women and men in the NRC regional offices and at headquarters for their
9 continued dedication and support to the program. Next slide, please.

10 As Dan mentioned, in October of 2019, NRR and NRO
11 reunified. And to support that reunification, the combined leadership of both
12 offices aligned on an aspirational vision and sense of purpose. And that
13 vision is, we make safe use of nuclear technology possible.

14 This unifying vision helps us in executing the safety and
15 security mission. The unified vision also helps us lead our people in
16 implementing the principles of good regulation and the NRC values, and it
17 serves as our North Star for our innovation and transformation efforts that
18 support overall agency transformation toward being a modern risk-informed
19 regulator. Can I have the next slide, please?

20 So, now, I'd like to shift to our current priorities, highlight
21 some of our recent successes. And I'd like to start first and foremost to say
22 that we continue to ensure the safety and security of the operating fleet
23 through robust and effective licensing, oversight, and incident response
24 programs.

1 And as Dan mentioned, you'll hear more about the results
2 of those programs during the second panel today. And safety and security
3 will always remain at the top of our priority list. Next slide, please.

4 With the reunification of NRR and NRO back in October, we
5 established the Vogtle Project Office. This project office was established to
6 provide focused attention, dedicated resources towards this nationally
7 significant project for the construction of two new AP1000 units at the Vogtle
8 site in Waynesboro, Georgia.

9 The Vogtle Project Office and NRC's Region II Office are
10 working very, very closely to ensure safe construction and commissioning of
11 these two new reactors for the United States.

12 And recently, we provided the Commission with a status
13 memo on an update on our essential licensing and oversight activities. Next
14 slide, please.

15 As Dan noted, in August of this year, the NRC staff
16 completed its review of the NuScale Small Modular Reactor design
17 certification application. And we're really proud of this accomplishment. We
18 believe we performed this review in a risk-informed manner and we did it on
19 schedule, and in fact, slightly ahead of schedule.

20 And as we get more experience in reviewing these new
21 technologies, we're really confident that we're going to be increasing our ability
22 to do risk-informed reviews on time. And this will help demonstrate
23 predictability in our regulatory processes. Next slide, please.

24 As also noted in Dan's opening remarks, this fiscal year, we

1 completed our reviews of the first two subsequent license renewal
2 applications. On the left is Turkey Point. On the right is the Peach Bottom
3 Atomic Power Station.

4 And the staff completed these safety-focused reviews
5 centered on the key technical issues to manage the effects of aging and long-
6 term operations. And these reviews, again, were also done on schedule.

7 And now, we've made possible the long-term operation of
8 these two plants to support the national critical infrastructure for electricity out
9 to 80 years from the date of initial licensing. Next slide, please.

10 We've been actively working to ensure readiness for
11 licensing and safe deployment of advanced reactors in the United States.

12 As noted, we're implementing the direction in NEIMA, which
13 includes the development of a technology-inclusive and risk-informed
14 regulatory framework. And what we're doing is so-called the Part 53
15 rulemaking, which we presented a plan to the Commission that we
16 recommended be a high priority rulemaking.

17 Back in June of this year, we accepted for review the first
18 advanced non-light water reactor combined license application for the Aurora
19 powerhouse by Oklo, and that review is actively underway.

20 And we're also supporting two nationally significant projects.
21 The first, the DOE's, the Department of Energy's advanced reactor
22 demonstration program, as well as the Department of Defense's micro-
23 reactor, Project Pele. Next slide, please.

24 Okay. The nuclear reactor safety program is really on the

1 leading edge of supporting the agency's overall efforts to become a modern
2 risk-informed regulator.

3 We've established an innovation accelerator called
4 EMBARK Venture Studio in NRR. And this organization, EMBARK, is really
5 empowering the future of the nuclear reactor safety program through creative
6 and innovative ways to do our mission better.

7 We're increasing our capacity to make better risk-informed
8 decisions by applying the Be riskSMART concept in a lot of what we do.

9 And we're also putting in place tools such as the Very Low
10 Safety Significance Issue Resolution process, which we put in place in
11 January. And this tool now gives our inspectors and our staff a mechanism
12 for transparently and timely dispositioning very low safety significance issues
13 without excessive use of resources.

14 We've also made great strides in developing data tools and
15 applying those tools in our licensing and oversight programs.

16 And during the transformation Commission briefing two
17 weeks ago, NRR's own Reed Anzalone gave you a demonstration of the
18 Mission Analytics Portal and Operation Rango, two really interesting projects
19 tied to our licensing and oversight programs that will help bring data to our
20 staff for improved analytical capability to help us work smarter, as well as
21 working on those external faces for these data projects, to show the external
22 community the value we add and the analytical capabilities we'd like to provide
23 and the data that we have in these programs.

24 And all these efforts in supporting agency transformation will

1 really help us focus our regulatory attention on the things that matter the most
2 and also to apply the most modern business tools and data technologies to
3 just help us work smarter. Next slide.

4 My final slide here is to say that we are proactively preparing
5 to regulate technologies of the future. I already mentioned our work in
6 advanced reactors.

7 In addition to that, we've taken our initiative to engage with
8 the Department of Energy's Light Water Reactor Sustainability program for a
9 potential major upgrade of a digital system and an operating nuclear power
10 plant. We are anticipating receipt of a license amendment request sometime
11 in 2021 in this regard.

12 We've also been diligently working with other federal
13 partners and the industry and fuel vendors to support the safe deployment of
14 accident-tolerant fuels in the mid-2020s.

15 And we're engaging with the external stakeholder
16 community on how advanced manufacturing technologies can impact our
17 regulatory programs and processes.

18 So, with that, Madam Chairman and Commissioners, thank
19 you for your attention. I would like to turn the presentation over to Maggie
20 Tobin.

21 MS. TOBIN: Good morning. My name is Maggie Tobin and
22 I'm the senior resident at North Anna Power Station, which is a station in
23 Region II near Richmond, Virginia. Prior to that, I was the resident inspector
24 at Arkansas Nuclear One near Russellville, Arkansas, in Region IV.

1 Before I was an inspector, I started my career off in the
2 agency at headquarters in the Office of Research as a reliability and risk
3 engineer. And I've been here for just about ten years. Next slide, please.

4 In this era of change for both our agency and the licensees,
5 it is important to reaffirm to the public, the Commission, and other stakeholders
6 that we, the resident inspectors and the agency's front line, have the focus
7 and dedication to ensure safety and security at our nation's operating nuclear
8 reactors.

9 Resident and regional inspectors execute the NRC mission
10 of ensuring safety and security by monitoring onsite activities. When
11 executing the Reactor Oversight Process, safety and security is our top
12 priority.

13 Since its inception, the ROP has continued to evolve to a
14 changing industry. For example, we have an improved focus on safety
15 culture, and we have added flex inspections to regular baseline inspections.
16 Next slide, please.

17 Even with all of the changes throughout the years, the ROP
18 has facilitated the ability to follow up on safety issues and inspectors will
19 always follow up on these issues.

20 And that's why I'm here today, to assure everyone that
21 within the always changing environment that we live in, the inspectors
22 continue to make risk-informed decisions and continue to have safety and
23 security as the overriding priority.

24 The ROP has increasing levels of oversight that allow for a

1 risk-informed and performance-based inspection program and this allows us
2 to always keep our focus on the things of greatest significance and to not lose
3 track of the forest for the trees, so to speak.

4 On the front lines -- next slide, please. On the front lines,
5 we have seen and experienced firsthand some of the recent changes that our
6 regional and headquarters staff are collaborating on to support and sustain
7 the Reactor Oversight Process.

8 For example, the agency periodically reviews the inspection
9 process to sharpen our focus and reduce the amount of overlap between
10 inspections, as well as the Very Low Safety Significance Issue Resolution, or
11 VLSSIR, process.

12 Ho mentioned it briefly as well, but this is a new process for
13 us that addresses issues of very low safety significance that otherwise would
14 require a great deal of research to close out and allows us to maintain our
15 focus.

16 These changes enable the inspectors and the agency to
17 better focus regulatory attention on matters of greater safety significance.
18 However, even with the changes, we continue to adapt while continuing our
19 focus on safety.

20 The Reactor Oversight Process continues to provide the
21 framework for risk-informed performance-based inspection and the dynamic
22 regulatory environment will continue to emphasize safety and facilitate our
23 focus on potentially safety-significant issues. Next slide, please.

24 With these changes, there have also been more tools

1 provided to us for better communications with our regional and headquarters
2 office staff that increase the efficiency of our inspection efforts.

3 A couple of examples, we have the tablet pilot program.
4 Currently, there are a number of inspectors using tablets out in the field. In
5 my opinion, these will provide a great deal of efficiency to our inspectors,
6 because we'll be out in the field and we'll have the information that we need
7 at our fingertips and the ability to take notes and pictures, to identify and
8 address questions in a prompt manner.

9 We also have Skype and now Microsoft Teams, which we
10 use every day to have video calls or group discussions with the Region or
11 Headquarters and it greatly facilitates our communication. This has been
12 especially vital since COVID-19 has many folks working from home, and it was
13 really vital in our process.

14 The Inspection Sample Tracking and Reporting tool, or
15 iSTAR, gives us a platform for more agile inspection report writing and allows
16 for more consistency across sites.

17 And the last thing I'd like to highlight on this slide is near and
18 dear to my heart, due to my background as a reliability and risk engineer in
19 the Office of Research. There are a number of risk tools available from both
20 the NRC and the licensee.

21 For example, the NRC and Idaho National Laboratories
22 have worked together to supply us with valuable tools, such as SAPHIRE,
23 which is the NRC's risk analysis tool, with individualized SPAR models in
24 SAPHIRE of each site.

1 As well as the licensee-provided tools, such as EOSP, or
2 the Equipment Out of Service Program, the maintenance rule database, and
3 the Plant Process Computer. All of these combine to give us a balanced and
4 truly risk-informed awareness of plant operations.

5 And all of these new tools combine to allow for some limited
6 remote inspection during the COVID-19 world crisis. We maintain an
7 awareness of what is going on onsite and continue to provide oversight, while
8 minimizing our personal risk. Next slide, please.

9 The value of being onsite, however, cannot be overstated.
10 Just by walking around and being available to talk to licensee employees, we
11 have a positive impact on safety every day.

12 On a daily or near daily basis, as resident inspectors, we
13 read control logs, tour the control room boards, discuss daily activities with
14 OPS personnel, attend licensee status meetings, turnover meetings, and we
15 communicate with the regional office every day to communicate the status of
16 the site.

17 We also use the available risk tools that I discussed earlier
18 to select inspection activities for the day and make risk-informed decisions.

19 Our presence onsite also allows us to learn the site such
20 that in the event we are needed to perform our incident response duties, we
21 understand how the systems should respond and how accidents can progress
22 under any set of hypothetical circumstances.

23 Our presence in the local community helps to reassure the
24 public that we maintain our oversight of the site. I've been called a number

1 of times out of the blue by members of the public who were looking to buy a
2 house on the lake, just looking for assurance that the site was being operated
3 safely.

4 The knowledge that not only do I work onsite, but that I also
5 live in the local area and that I have a personal incentive to make sure that the
6 site continues to be operated safely gave them great peace of mind.

7 Just as an aside, the picture on this slide is from when I was
8 at ANO at the Russellville Fall Festival. We set up a booth and borrowed a
9 Geiger counter and some uranium glass and let the local kids play with it. It
10 was a huge hit in the community. Next slide, please.

11 Before I close and hand it off to Stephanie, I'd like to just
12 discuss an example of how an inspector added tremendous value to the
13 program. A friend of mine from Region III, Vance Petrella, identified an issue
14 when inspecting at a site earlier this year.

15 In 2018, the licensee changed the control rod design life
16 from 12 effective full power years to 15 effective full power years and they had
17 been operating beyond the original 12 effective full power years since June
18 2019.

19 During his inspection, Vance noted that some of the key
20 assumptions made to increase the design life of the control rods was that the
21 plant would be operated using what they called baseload operation, which is
22 to say at or close to 100 percent power, except under unusual circumstances.

23 However, since the licensee did not incorporate the
24 restriction into the operating procedures, they did not realize that they were

1 outside the bounds of the assumptions when, in late 2019, they began
2 performing flexible power operations, also known as load following, where the
3 unit reduces power to match grid demand.

4 Although, with significant additional analysis, the licensee in
5 this case was able to determine that the control rods remained operable, at
6 the time of discovery, there was a significant amount of concern that the rods
7 would not be capable of meeting their safety function.

8 Vance's example is just of many in the agency that
9 demonstrates the value of inspectors as the agency's boots on the ground.
10 And inspectors will continue to leverage the tools available for oversight
11 success and plant safety and security. And our overriding concern and goal
12 as inspectors has always been and will always be safety.

13 Next, I'll hand it off to Stephanie.

14 MS. COFFIN: Thanks. Thanks, Maggie. Can you hear
15 me okay? All right. Good morning, Chairman and Commissioners. It's an
16 honor and privilege to be here today representing the Office of Research.

17 We're a support organization, we're here to ensure the
18 success of the new and the operating reactor business lines, and we do that
19 by providing deep technical expertise and the analytical tools that allow the
20 program office to achieve its goals.

21 You don't always see us, but we're behind some of those
22 forward-leaning rulemakings, the successful licensing programs, the
23 complicated plant events, the critical certification and licensing decisions.

24 We build on our talent and enhance our capabilities through

1 partnerships, because we know that great research does not happen in
2 isolation. And this morning, I'd like to describe some of those partnerships
3 with you. Next slide, please.

4 The first partnership I'd like to talk to today is our partnership
5 with the Department of Energy, which not surprising is our most expensive.
6 We've always had a strong relationship with DOE and the passage of the
7 Nuclear Energy Innovation Capabilities Act has only served to enhance our
8 communication, cooperation, and collaboration.

9 DOE is emphasizing deployment. And so, in response to
10 that, our research has a mantra of Be Ready. We're employing three
11 strategies to that end, and I've listed those here on the left-hand side of the
12 slide.

13 We're engaging DOE, not as a passive listener, but as an
14 active partner. And the term coordinated activities is directly from the
15 memorandum of understanding that we have with DOE under NEICA. And I
16 show some of the programs in which we're engaged on the right-hand part of
17 the slide.

18 For example, Dr. Kimberly Webber of the Office of
19 Research, was part of the analysis of alternatives that led to the design
20 attributes for the Versatile Test Reactor, or VTR.

21 Our participation on the VTR project will bring us experience
22 with the DOE authorization process. They're applying digital engineering
23 concepts in their design and construction processes and they're testing the
24 licensing modernization project.

1 And it's not just advanced reactors that are pursuing new
2 technologies. DOE's Light Water Reactor Sustainability program is
3 championing advances to support the current operating fleet in areas such as
4 digital I&C and materials research, to support long-term operations.

5 The second strategy we employ is to identify and close
6 research gaps. Consistent with our be ready mindset, we're successfully
7 completing activities described within the advanced reactor and accident-
8 tolerant fuel readiness plans.

9 Our focus is on enhancing our analytical capabilities to
10 support NRR's future review of reactors and fuels. Experimental data needs
11 to exist, and they take time and resources to complete. We work with DOE
12 and others to ensure these data needs are identified, prioritized, and
13 addressed.

14 The experimental data ensures our analytical capabilities
15 have robust verification and validation behind them, without unnecessary
16 conservatisms.

17 The third strategy is deployment of research personnel to
18 national labs. So, this year, research staff are on virtual rotations to Oak
19 Ridge National Lab, to work hand-in-hand with experts there in the area of
20 advanced manufacturing.

21 And we also plan to deploy a research staff member to
22 Idaho National Lab to engage in experiments related to the qualification of
23 advanced fuel designs and extended burnup limits of existing fuel designs.
24 Next slide, please.

1 I'm going to turn to some other domestic and international
2 partnerships. I've included on this slide mention of the Phenomena
3 Identification and Ranking Table, or PIRT, process that research facilitates.

4 It's a systematic way of gathering information from experts
5 on a specific concept and ranking the importance of the information in order
6 to meet some decision-making objective. It's been applied in many areas to
7 help guide research or develop regulatory requirements or guidance.

8 We're applying PIRT as part of a readiness plan for
9 accident-tolerant fuels and our partnerships are key to having the best experts
10 participate on the PIRT panel.

11 We've completed a PIRT exercise on chromium-coated
12 cladding -- that's hard to say -- to support development of staff guidance, and
13 just this month, we initiated a PIRT related to accident-tolerant fuel
14 performance under severe accident conditions.

15 An important aspect of being ready for advanced reactors
16 includes the endorsement of key codes and standards. This is strategy four
17 under the advanced reactor readiness plan.

18 Louise Lund of Research is the standards executive for the
19 agency. She had initiated and led discussions with two key standards
20 organizations, American Nuclear Society, ANS, and the American Society of
21 Mechanical Engineers, ASME, to ensure mutual understanding and alignment
22 on industry priorities.

23 A recently achieved milestone in this area was the
24 successful balloting by an ANS and ASME joint committee of its advanced

1 non-light water reactor probabilistic risk assessment standard, which received
2 a unanimous affirmative vote. Our engagement will facilitate NRC's formal
3 endorsement of this standard.

4 Internationally, we continue our partnerships across the
5 globe. I would like to call out one of these here, the Framework for Irradiation
6 ExperimentS, or FIDES. FIDES is sponsored by the Nuclear Energy Agency
7 and is a multinational effort that brings together resources and facilities to
8 conduct irradiation studies of fuels and materials.

9 Research has been a champion of this program as we recognize the
10 importance of having this testing capability, given the shutdown of the Halden
11 Reactor in Norway and the need for experimental data to support advances in
12 fuels and reactor designs. Next slide, please.

13 The last partnership I would like to speak to is our
14 partnerships with institutes of higher learning through the Integrated University
15 Program, or IUP. Since 2009, the IUP has provided scholarships,
16 fellowships, and faculty development grants. Students who receive grants
17 commit to working in the nuclear field upon graduation.

18 What's new for 2020 is our ability to also award mission-
19 related research grants. Research at universities is often at the cutting edge
20 and we want to harness that.

21 At this point in time, Research has proposed supporting
22 more than a dozen diverse forward-leaning projects that total over \$7 million.
23 We plan to award these grants by the end of the calendar year, with the
24 support of our colleagues in the Office of Administration and the Office of the

1 General Counsel.

2 The last point I would like to make on this slide is to talk
3 about our inaugural Nuclear Regulator Apprenticeship Network, or NRAN,
4 cohort. I've included their photos on this slide. The cohort is comprised of
5 23 members, 21 of them were recipients of scholarships received through the
6 IUP. It's a fantastic pipeline of talent for the agency.

7 Thank you again for this opportunity and I will turn the
8 briefing over to Shaun Anderson.

9 MR. ANDERSON: Thank you, Stephanie. Good afternoon,
10 Chairman, Commissioners. Thank you for the opportunity to allow me to be
11 here today.

12 I've been at the agency for approximately 16 years and I've
13 worked in several positions, but EMBARK is truly a great and exciting
14 opportunity for me personally, just to try something totally different in the way
15 that we do business for the nuclear reactor safety program.

16 It's truly a growth opportunity and it's all about getting
17 outside of your personal comfort zones and pushing some personal limits and
18 exploring some of the new possibilities for individuals themselves or for our
19 program. And for that reason, our slides provide a little different look and feel
20 as we move forward.

21 Here at EMBARK, we're supporting the nuclear reactor
22 safety program by optimizing processes, leveraging technology, and
23 advancing the use of data analytics to better inform decision-making.

24 We're partnering with all parts of the agency in driving and

1 accelerating change to how we do business and, thus, many of our
2 approaches and changes are being cultivated in other business lines. Next
3 slide, please.

4 EMBARK is an innovation accelerator. We are a small
5 organization with a team of dedicated people who I just cannot thank enough,
6 and we're working to change the minds and culture to allow staff to make real
7 change.

8 Our focus is always on safety first and foremost and we want
9 to make sure we allow staff to spark ideas and new initiatives by removing the
10 barriers, so that we can improve the way that we work.

11 And we're starting to do this at the tactical level. We want
12 to be able to help the staff bring their ideas to the table and be able to work all
13 the opportunities that they have in various aspects. Next slide, please.

14 Within EMBARK, there's no two projects that are alike.
15 Some we lead in its entirety, some we just support, some we partner with other
16 organizations on, and some we just remove the barriers. So, our operating
17 model is to enable, advise, partner, create, and teach. And ultimately, we
18 want staff to -- we want to be able to inspire.

19 We believe that creating a sustained culture of permanent
20 innovation is key to organization agility and by sparking the ideas and inspiring
21 staff to look at old problems in new ways, then we can begin to build innovation
22 and capacity at all levels of the organization.

23 And ultimately, we want to leave each person with the
24 feeling that they tried, they contributed, or they learned from their experience

1 to be able to do something similar or even better in the future. And again,
2 this helps us create the ultimate goal of creating a permanent culture of
3 innovation. Next slide, please.

4 So, how are we structured in EMBARK? In EMBARK, we
5 have four departments. We have The Garage, Neurology, NextGen Data,
6 and HAShtagChange. And each of our four departments nicely aligns with
7 our agency's four focus areas under the transformation initiative.

8 And The Garage is our process improvement effort. The
9 Garage is for fine-tuning our infrastructure-like projects, our foundational work,
10 like licensing processes.

11 Neurology is all about the mindset. It's about
12 understanding risk, and not necessarily the capital R risk in terms of PRA, but
13 just approaching the same problem in a different way and trying new
14 approaches to innovation.

15 HAShtagChange, this is about our cultural experience and
16 experience interacting with one another, internally and externally. We want
17 to create a positive culture of innovation, transformation that empowers the
18 staff and considers various stakeholders' perspectives and improves
19 interactions at all levels of the organization.

20 And last, NextGen Data is about embracing the use of data
21 and data analytics by developing tools to monitor and manage how we
22 conduct business. Essentially, expanding the use of data and applying
23 visualizations to help us increase our curiosity.

24 We really just want to make sure we're asking the right

1 questions and working ultimately making better informed regulatory decisions.

2 Next slide, please.

3 Here, I just wanted to highlight some of the activities and
4 focus areas that we have been involved in over the last year.

5 For ASME code rulemaking, the team completed a
6 recommendation report for consideration by NRC management and other
7 agency processes for streamlining 10 CFR 50.55a, codes and standards.
8 Ultimately, we want to be more efficient and ensure licensees can promptly
9 utilize NRC's approved codes and the agency is now working on a SECY
10 paper to discuss many of the potential changes.

11 In subsequent license renewal, we partnered with our staff
12 in Division of New and Renewed Licenses and completed a process
13 improvement evaluation for SLRs. The team has identified activities that
14 could be enhanced during the safety review, while maintaining effectiveness,
15 and many of them are planned for implementation this fall.

16 For risk-informed process for evaluations, this process is not
17 about solving a new problem, but it's about sustaining the innovation mindset
18 and leveraging the work and efforts that came before us and taking it just to
19 the next step, ensuring that the resources are adequately applied to issues of
20 more safety significance.

21 And the process doesn't eliminate NRC review, nor does it
22 imply an immediate approval. Rather, it's just a streamlined approach in
23 accordance with the safety significance of the issue and the level of review.

24 Additionally, for COVID-19, it ignited an opportunity for us to

1 look into web-based submissions, and most activities that stakeholders
2 interact with the federal government can be done online and there are some
3 capabilities here at the NRC and we're beginning just to scratch that surface.
4 So, we believe there is significantly more that we can do in this area and we
5 can expand upon.

6 And I'm aware that you all had the Mission Analytics Portal
7 was covered at the transformation meeting a couple weeks ago. I just wanted
8 to mention that the MAPX effort focuses on external stakeholder access to
9 more information and data.

10 We want to be able to provide an open and transparent
11 experience for stakeholders that's secure, flexible, and provides a
12 personalized environment to interact with the NRC.

13 And a couple of things I wanted to mention before closing is
14 that, first and foremost, we couldn't have much of this success without the
15 staff. I've got to give a lot of thanks to the teams that worked on many of the
16 projects throughout the year. It's truly their ideas, their time, and their energy
17 that made this happen.

18 And second, many of our initiatives, we are doing a lot more
19 outreach and public meetings on ideas and new approaches before they've
20 been finalized.

21 The idea is to get some stakeholder feedback in a more
22 iterative manner, so that we're trying to be more agile in our approach.
23 However, we'll continue to apply the principles of good regulation by ensuring
24 there's openness and transparency and seek engagement opportunities as

1 we continue to move forward.

2 And thank you for your time. And I'll hand it back to Dan.

3 MR. DORMAN: Thank you, Shaun. Next slide, please.

4 So, as you've heard this morning, the staff in the operating and new reactor
5 business lines are innovating and transforming to better regulate the nuclear
6 technologies of today and of the future.

7 We are also working with our domestic and international
8 partners to ensure our independence is not isolated, it's consistent with the
9 Commission's first principle of good regulation. And early engagement and
10 information exchange support staff knowledge that enables timely
11 development of regulatory infrastructure.

12 We are continually seeking ways to improve our regulatory
13 and oversight processes to make them more transparent to the public and
14 more efficient for our applicants and licensees and make us ever more ready
15 for the future, while keeping our focus on safety and security. Next slide,
16 please.

17 Recent circumstances have affirmed for us that, especially
18 in times of change, our most important asset as an agency is our people. As
19 part of our efforts to build a 21st century workforce, we are using strategic
20 workforce planning to better respond to the dynamic environment we work in,
21 helping us to better identify skill gaps and workload trends.

22 A strategic look at the next several years has given us the
23 opportunity to affect change now, to ensure that we have a stable, capable
24 workforce in the years to come. To that end, as Stephanie mentioned, we're

1 investing in new generation of nuclear safety leaders through the Nuclear
2 Regulatory Apprenticeship Network, many of whom will assume roles in
3 supporting the operating and new reactor business lines.

4 In addition to hiring new entry level employees, we're
5 making sure that our current workforce continues to have the skills needed to
6 execute our mission through training and development opportunities.

7 I'd like to thank the staff of the NRC again for their hard work
8 and determination in executing our important mission to protect people and
9 the environment.

10 I'd also like to thank you, Chairman Svinicki and
11 Commissioners, for the opportunity to present today the results of the staff's
12 work, and thank all the speakers and all the staff who've contributed to this
13 panel. And with that, we will conclude and take your questions.

14 CHAIRMAN SVINICKI: Thank you, Dan. You've laid out a
15 lot of interesting things in all those very informative presentations. We'll begin
16 the question and answer period today with Commissioner Wright.

17 COMMISSIONER WRIGHT: Thank you, Chairman. So,
18 good morning and thank you so much for your presentations. I would be
19 remiss to not acknowledge all the great work that the staff's been doing and
20 they've accomplished a great deal, despite all the circumstances that we've
21 had to go through here since, we know, March.

22 So, the agency has continued on and they've been working
23 seamlessly through all this global pandemic things and all related to it, and it's
24 just a remarkable testament to their diligence and their expertise and their

1 professionalism and their commitment to our mission. So, thank those that
2 are here and those that are listening as well. And especially to the people
3 who we serve too, so that's very important.

4 So, my questions, I'm going to start with Ho, so I'm going to
5 have to turn over here. That's the one thing about this COVID thing, we're
6 spread out.

7 Ho, thank you for your leadership and moving the
8 organization forward and in the right direction, I believe, as a risk-informed
9 regulator. So, it's been about a year now since you issued your memo on
10 how staff who support the nuclear reactor safety program should apply the
11 principles of good regulation in this risk-informed environment.

12 So, could you talk to me on how you've seen the staff
13 embrace this direction in meeting our mission? Just maybe expand upon that
14 a little bit?

15 MR. NIEH: Sure, thank you for the question, Commissioner,
16 and appreciate your acknowledgment of the work that's being done by the
17 staff and the programs.

18 So, since the year, nearly one year we've been together at
19 an office, I really feel that the staff in NRR and the program office and in the
20 regions are embracing the spirit of the direction that we're trying to go as an
21 agency.

22 And maybe just by one example that makes me feel this way
23 is that, recently, we were dealing with a regulatory matter, with one of our
24 licensing activities here. And through the course of the discussion -- this was

1 associated with a very significant project for the agency, I won't get into the
2 details of it, but I'll just give you a sense of kind of how the mindset is taking
3 shape within the organization.

4 What I found in this discussion, it was a diverse group of
5 people, all the engineers involved with the activity, the project managers, it
6 involved people from the region as well and in headquarters, and we first
7 focused on what is the safety significance of the issue, right?

8 We aligned on that right away, unanimously, just to figure
9 out, what are we talking about here, in terms of safety? And then, we talked
10 about all the other regulatory components.

11 And just sitting back and observing and listening to the
12 questions that we were asking ourselves, right, what are the relevant
13 regulatory requirements, what are the implications of those requirements, and
14 how compliance is being demonstrated?

15 Also, the questions that came to the table that challenged
16 ourselves, right, are we being inflexible, right, are we being risk-informed in
17 this? And that happened by itself, right?

18 It wasn't top-down, the director of NRR saying, this is what
19 we want to do, it actually happened more from the bottom-up, that
20 conversation happened naturally. To me, it was really focused on the
21 principles of good regulation, we kind of looked through where things were.

22 And I would say this, Commissioner, that what was
23 inspirational for me in that example was that, I hear very often that sometimes
24 transformation is about less regulation, doing less, well, here was a case

1 where we actually came out on the other end, where we actually needed
2 something more to be done, right?

3 And we got there on our own. We recognized that was a
4 tough call to make, but we asked all the right questions, the natural instincts
5 kind of kicked in, that the staff really, we challenged ourselves to see if we
6 were really risk-informed and if we were really being inflexible or not. And we
7 ended up in a place that I could stand 100 percent behind that decision that
8 the staff recommends that we take.

9 So, to me, I feel like we're -- those little examples are
10 happening more and more throughout the Office of Nuclear Reactor
11 Regulation and it's really encouraging to kind of see that happen after just the
12 short period of time of us coming together.

13 COMMISSIONER WRIGHT: So, I want to follow up on that,
14 because it's also been about a year since the NRR and NRO merger.

15 And I wanted to get your thoughts on how things are going
16 and maybe whether there are any lessons learned that you've gone through
17 for potential future organizational mergers, should they occur as well. So, if
18 you could help me out a little bit there?

19 MR. NIEH: Yes. So, absolutely, Commissioner. In fact,
20 one individual I really want to thank is Mary Jane Ross-Lee. She was the
21 lead executive in guiding the reunification of NRR and NRO, and just sent me
22 an email, I think late last night, on a lessons learned report from the merger, I
23 just haven't had time to read it, obviously, as I was preparing for this meeting.
24 But I will read that very carefully.

1 In terms of how it's going, I think we came together very
2 smoothly. Like, in the presentation that we showed you today, we made
3 some big accomplishments in one year, in the middle of a public health
4 emergency. I think that is just extraordinarily incredible. And, again, that's
5 really all pinned on the staff for their dedication to the mission.

6 From lessons learned, Commissioner, I think the big one
7 that's maybe just an obvious one for most things that you undertake that are
8 significant is communication, right? We were bringing in kind of two different
9 cultures, quite frankly.

10 You had the culture that was established when NRO was
11 formed, circa 2005 time frame, right? And they went off on their own to really
12 embrace the enabling aspect of the renaissance that we were undergoing at
13 that period of time. And they did some incredible things as an office.

14 And NRR, what remained was focused on the licensing and
15 oversight programs and developing our processes and refining them.

16 So, we were kind of bringing these two cultures together and
17 it did require us to take a lot of effort and attention to communicate.

18 And I was reading this book related to objectives and key
19 results that the EDO had all our executives read and it was really interesting
20 because there was one part of the book that talked about something to the
21 effect of if you think you're communicating enough, you're probably not.

22 And what I found with all the activities, especially with
23 change management, we're learning from -- we're taking the feedback very
24 seriously from the Safety Culture and Climate Survey, and one thing it's shown

1 us, that we need to communicate better on the reasons why we're doing
2 certain things.

3 So, I think that's probably one of the major lessons learned,
4 is just the communications and focusing on the people with the merger.

5 COMMISSIONER WRIGHT: Well, thank you so much.
6 And I don't want to run out of time, I'm going to move on, because we're not
7 going to get to talk to everybody. But I've got a senior resident here, I need
8 to talk to --

9 MS. TOBIN: Yes, sir.

10 COMMISSIONER WRIGHT: -- a senior.

11 (Laughter.)

12 COMMISSIONER WRIGHT: So, Maggie, it's good to see
13 you, and thank you so much for being here, it's not every day that we get a
14 chance to have those on the front line at sites in Commission meetings here
15 at headquarters.

16 So, I will tell you personally that I miss going to the plants
17 and meeting with the residents and with the seniors, I really learn a lot on
18 those visits, and it just excites me to have you here, because you all do so
19 much for the agency and you are the boots on the ground. You are --

20 MS. TOBIN: Thank you.

21 COMMISSIONER WRIGHT: You are the safety part of this,
22 because you have to practice it every day. So, in addition to what you
23 discussed today, are there other tools that you would like to see maybe
24 introduced or to enhance your risk-informed inspections?

1 I believe it, to expand a little bit more, I believe EMBARK
2 has some initiatives and I'd be interested in your thoughts on them, especially
3 since your background as a reliability and risk engineer.

4 MS. TOBIN: I think I have what I need to do the job
5 effectively, but I will also say that folks are very, very helpful. If I need
6 something and I don't have it, the Operating Experience Branch is very, very
7 good at getting me new information on things.

8 So, offhand, I couldn't think of anything that I'm lacking.
9 And if I ever do find something that I'm lacking, there's someone there to help
10 me right away.

11 COMMISSIONER WRIGHT: Okay. Well, thank you for
12 that.

13 MS. TOBIN: Thank you.

14 COMMISSIONER WRIGHT: And I, just my family, I have a
15 son who's out in Arkansas and I did visit ANO and had a great time out there,
16 and he uses his boat in that lake out there, so I know exactly what you're
17 talking about. So, thank you.

18 Shaun, good to see you. And thank you for your
19 presentation. I've always, and I'm a big fan, as you know, and hear great
20 things about the innovative tools that you and EMBARK are producing.

21 Can you highlight one or two tools that might be in
22 development to maybe make a person's life, a senior resident or a senior
23 resident's job, like Maggie's, more effective and maybe --

24 MR. ANDERSON: Yes. Actually, one of the first tools,

1 we're working with the Operating Experience Branch, they're developing a lot
2 more tools, that actually have been rolled out to many of the regions already,
3 that looks at some of the more safety-significant components, to help refine
4 and look at which inspections they should be focusing, which components they
5 should be focusing their inspections on.

6 And actually, that's with the collaboration with the Office of
7 Research, looking at their models to make sure that it's all in one nice succinct
8 tool and any inspectors within the network can actually access this and look
9 at their specific plan and their models.

10 We're also working with some other tools, looking at
11 machine learning, again partnering with Research and OpE organizations.

12 But we want to take, for example, the industry reports that
13 they provide on a periodic basis and just look at the information, the forms that
14 they're reporting on and having that readily available into a nice condensed
15 form for residents or even the regional staff, so they don't have to go mining
16 for that type of information and they can even parse it down by system. So,
17 that's one of the things that's in the works.

18 COMMISSIONER WRIGHT: Thank you so much. I'm over
19 time. Thanks.

20 CHAIRMAN SVINICKI: All right, thank you very much.
21 Next, we'll hear from Commissioner Hanson. Please proceed.

22 COMMISSIONER HANSON: Thank you, Chairman
23 Svinicki. Good morning, everybody. I wanted to take a few minutes here at
24 the beginning of my remarks to recognize somebody that I've seen a number

1 of times in the slides and on posters and public affairs postings.

2 She appears no less than 12 times in the slides this
3 morning, particularly with closeups on pages 17 and 57, for those of you who
4 are following along. Her name is Courtney St. Peters. She is the new
5 resident inspector at Palisades Nuclear Power Plant in Southwest Michigan.

6 I talked to her yesterday. She's shown up in a number of
7 cases on LinkedIn posts and Facebook, there was even an annotated one.
8 You can always pick her out, she's wearing a bright shirt, usually pink or
9 flowers or something.

10 She's got her hard hat, her flashlight, she's on the job,
11 conducting onsite inspections at the plant there in Michigan. And I had a
12 great conversation with her.

13 She's actually been with the NRC since 2010. She did a
14 summer internship program and then was part of the coop program going into
15 her senior year at Missouri University of Science and Technology, and then
16 joined the NRC immediately afterwards.

17 Started in what was then NRO, working on small modular
18 reactors. Gravitated towards seismic PRAs, as part of the near-term task
19 force on Fukushima, did a great job there. But recognized the emphasis on
20 field experience in the NRC and wanted to pursue some of that.

21 And so, when a position came open in 2018 in Region III,
22 she moved out there, hoping actually to land a resident inspector position
23 eventually, and she did. She was also, I think, trying to get back to the
24 Midwest a little bit, to be closer to family and the Midwest just being a good

1 place, which in my book just shows her sound judgment.

2 (Laughter.)

3 COMMISSIONER HANSON: But she's found the work
4 challenging. She started in the middle of the pandemic, I mean, her first day
5 at Palisades was in May, and I tend to pay attention to announcements out of
6 Region III and had kind of picked up on that.

7 But she said it's going well. She's really enjoyed working
8 with Paul LaFlamme, who's the senior resident inspector there. And he's
9 been giving her hard samples to work with, as she said. And so, it's been
10 challenging, but she really enjoys it.

11 And I wanted to kind of recognize, I know I've joked
12 occasionally that coming on and being sworn in in the middle of the pandemic,
13 I was a little bit of a poster child, not compared to Courtney. Courtney, at this
14 point, is the true poster child, literally appearing on posters.

15 And she said she was a little bit chagrined and
16 embarrassed, right? She's, like a lot of people, she's an introvert, but she's
17 kind of embraced this role and recognized that she's gone viral and I think has
18 embraced this with an enormous amount of good humor.

19 So, as the real poster child, and really for the
20 professionalism and dedication of the staff and really jumping in and being
21 adaptable, I wanted to recognize Courtney.

22 And, I guess, kind of teeing off of that, my initial question is
23 for Maggie. I'm going to take advantage of the fact that we have a senior
24 resident inspector here, too.

1 (Laughter.)

2 COMMISSIONER HANSON: What would you tell, whether
3 NRAN folks or other folks early in their career, about why they should consider
4 a resident inspector role? And what made you decide to pursue this after, as
5 you said, spending a number of years in the Office of Research? And what
6 do you like most about the job and kind of what are the most challenging
7 aspects for you?

8 MS. TOBIN: Yes, this job is amazing, it's my favorite job I've
9 ever had, absolutely.

10 (Laughter.)

11 MS. TOBIN: It's so much fun. If you get bored with your
12 computer, you put your hard hat on and you go crawl around and try your very
13 best to get lost in the bowels of the building. I mean, it's great.

14 So, I really love that you do something new every day. If
15 you get bored with something, you go do something else. You have the
16 ability to set your own schedule and, within the risk of what's going on onsite,
17 do what you feel is most important every day.

18 And I really -- so, I was the only person onsite once with a
19 partial loss of offsite power. And it took about 30 seconds to realize that the
20 sound that I was hearing was the safeties going off before I went to the control
21 room and I -- it remains, I mean, it's never a good day when you have
22 something unusual going on onsite, but it remains one of my favorite days I've
23 ever had, because I felt like I was doing real good, I was providing real benefit,
24 and I was seeing the reason that we're there live and in-person.

1 And so, I would absolutely recommend a tour as a resident
2 or senior resident, even if you don't want to make it a career, going out, doing
3 a few years before coming back to headquarters, it teaches you so much
4 about why we do what we do.

5 Sometimes you lose track of why we're doing what we're
6 doing at headquarters. Being in the field teaches you that. And so, I would
7 recommend to everyone, absolutely, they should go out and do the inspection
8 job.

9 COMMISSIONER HANSON: Great. Thank you very, very
10 much for that, I really appreciate it.

11 Question for Stephanie. You had hit on a number of
12 coordinated activities and ongoing efforts with the Department of Energy.
13 Could you just talk a little bit, in a little bit more detail, particularly about the
14 modeling and simulation work at DOE and how that's feeding into the work
15 that we're doing here at NRC?

16 And how have we kind of jointly established some of the
17 knowledge base to come out of the, say, the CASL initiative on Oak Ridge, on
18 really simulating the internals of reactors? And what the plans are for
19 coordination going forward on some of that work?

20 MS. COFFIN: Okay. So, this is just -- that's a lot.

21 COMMISSIONER HANSON: Oh, sorry.

22 (Laughter.)

23 MS. COFFIN: So, that's a lot, but I will do my best to talk a
24 little bit about it. So, I think it's really important to know that -- let me take my

1 glasses off so I can see -- that there's this really incredible partnership
2 between DOE and NRC with respect to the codes.

3 And if you ask me to go -- there's not like here's the NRC
4 codes, here's the DOE codes, and never the two shall meet. We've
5 completely obliterated that kind of mentality.

6 And so, we are in constant communication with our DOE
7 colleagues and using their codes, when it's appropriate to use their codes,
8 testing our codes against their codes, pushing them to add information to their
9 -- we tend to use DOE's data as opposed to creating our own data, they really
10 have the database that we pull into our codes to use.

11 We want to -- they've made great strides, in terms of they
12 train us, they've been very, very generous with their resources in training us.
13 Some of their capabilities, with like MOOSE, and the ability that that's going
14 to bring, in terms of integrating our codes more, so that they sync more
15 seamlessly, talk to one another, and there's not this kind of a manual
16 movement from the fuel code to the thermohydraulic code to the accident
17 code.

18 We're working to make that more seamless and integrated.
19 And the expertise that they share with us and support us in that way is just
20 really -- and I like to think that we're helping make their codes better, too.

21 We do benchmarking against each other, and you'll find
22 differences when you do benchmarks. And so, you really pursue those
23 differences and you try to understand, are your assumptions different? Why
24 did you get the different answer? And chasing that down just makes

1 everything work better.

2 COMMISSIONER HANSON: So, are NRC staff, then -- so,
3 some of this work is going on at Oak Ridge, some of it's going on at Idaho,
4 and so forth. So, are NRC staff going there and interacting with the --

5 MS. COFFIN: Virtually --

6 COMMISSIONER HANSON: -- in detail on the model?

7 MS. COFFIN: -- at this point in time --

8 COMMISSIONER HANSON: Yes, virtually, of course.

9 MS. COFFIN: Yes.

10 COMMISSIONER HANSON: Yes.

11 MS. COFFIN: Yes.

12 COMMISSIONER HANSON: Okay. All right. Thank you.

13 MS. COFFIN: Okay.

14 COMMISSIONER HANSON: That's all I have. Thank you,
15 Chair.

16 CHAIRMAN SVINICKI: Okay. Well, thank you all once
17 again for really wonderful presentations today, and like I said, you've laid down
18 a lot of different topics.

19 I wanted to turn to one that was mentioned somewhat in
20 passing, but has been a significant and very long journey for the NRC, and
21 that's licensing and oversight approaches to the greater adoption of digital I&C
22 at regulated facilities.

23 It feels like one of my very first meetings in 2008 on the
24 Commission was about this, so when I say long journey and it's even longer

1 than my personal voyage on it.

2 Maybe, Ho and Stephanie, if you want to divide that up a
3 little bit, if you were talking about kind of what you see in the very near-term,
4 what would you point to as the kind of progress we've made over maybe the
5 last 18 to 24 months?

6 And I think that my understanding is in terms of concrete
7 licensee willingness for someone to embark on a significant licensing activity
8 with us, we're seeing perhaps some willing, I was going to say victims, I'll say
9 volunteers, to proceed in that process?

10 Ho, do you want to kick it off? And then, Stephanie? I
11 know that this is a lot of really mutuality between NRR and Research.

12 MR. NIEH: Sure, thank you for the question, Chairman.
13 And in relationship to the long journey, I remember the first opportunity I had
14 too, to brief this Commission on digital I&C. I think I used the word odyssey
15 in studying the record of where we've been.

16 But that was in October of 2018. And the last time I
17 appeared before the Commission was in May of 2019. And we had made
18 steady progress in developing the regulatory infrastructure, in terms of our
19 guidance documents to help enable more wider use of digital technologies in
20 nuclear power plants.

21 Most recently, we've reached finally the last throws of
22 putting in place the regulatory guidance to apply the 50.59 process to digital
23 upgrades for non-reactor protection system and non-engineered safeguard
24 feature systems in nuclear power plants. So, we're almost done with that.

1 We're working towards the completion of Branch Technical
2 Position 7-19 to address common-cause failures in digital control systems.
3 Again, working through the final resolution of the comments there.

4 And as noted to the Commission previously, we had put in
5 place a new review process, Interim Staff Guidance 06 Rev 2, I think toward
6 the end of 2019, that provides a more streamlined approach for major digital
7 upgrades.

8 So, we've laid a lot of groundwork, Chairman, and it's time
9 to be tested at this point. This is why we took that initiative to engage with
10 the Department of Energy's Light Water Reactor Sustainability program,
11 coupled with the things that we're doing, as Shaun mentioned, in terms of
12 creating the risk-informed mindset of how we want to go about our work.

13 And the vision that we had in creating this pilot review
14 project through the LWRS, the Department of Energy Light Water Reactor
15 Sustainability program was we want to treat this as a huge project, right?
16 This could be a gateway regulatory review that would really kind of open the
17 doors for us to gain more experience and do more of these things.

18 So, we really need to be tested in applying these new
19 processes. So, as I mentioned in my remarks, we are expecting a license
20 amendment application sometime in 2021 for a major digital upgrade and we
21 do hope to be able to partner -- in fact, Ray Furstenau and I had a periodic
22 meeting recently, and he's the director of Research.

23 And he talked about some of the things that he's working on
24 to help kind of bring some experience from outside of the NRC, again to kind

1 of better inform us of how we can get through some of these regulatory
2 reviews. But I do feel confident that our team is ready to receive that.

3 CHAIRMAN SVINICKI: Great. And speaking of our
4 director of Research Ray, Stephanie, please take it away as the deputy in that
5 office.

6 MS. COFFIN: So, I'll just build a little bit on what Ho talked
7 about. So, the Research staff has helped NRR in terms of the development
8 of that guidance that Ho mentioned. And of course, we own the process for
9 issuing RISs and regulatory guides, so we certainly helped in that respect.

10 In terms of actual research activities, we are focused on
11 common-cause failure, because that seems to be the big area of concern.
12 And so, we're conduct research activities in that regard.

13 And then, the other thing that Ho touched on, but just to
14 bring a little bit more specificity to it, is there's -- we think it might be very, in
15 terms of reaching out to our international counterparts who have processed
16 digital I&C upgrades into their nuclear facilities, is actually bringing a subject
17 matter expert from one or more of those countries to the NRC for some period
18 of time, maybe timing it with the pilot that's coming in next year, to really help
19 us understand how they approached it, what kind of hurdles did they face, and
20 how did they overcome them?

21 CHAIRMAN SVINICKI: Well, thanks for that. And again, in
22 one of the meetings in my early time on the Commission, we talked about
23 digital I&C, and at that time, a lot of us were remarking on the obsolescence
24 issues for the regulated facilities and the inability to acquire some of the

1 needed components.

2 And I imagine, since that was 12 years ago, it's not gotten
3 any better, in terms of supply chain. So, I appreciate the staff's sustained
4 focus on this.

5 And, Stephanie, while I have you, you had mentioned the
6 importance of working on codes and standards, I just, for my own curiosity,
7 how have codes and standards committees been impacted by the public
8 health emergency? Have they pretty much gone virtual, but kept current with
9 the meetings and convenings that they need to have?

10 MS. COFFIN: You're exactly correct, they moved to virtually.
11 In some respects, we always find these silver linings, in the COVID-19, and
12 what's kind of nice about the codes and standard meeting going virtual is that
13 it allows other people to participate that might not normally be able to
14 participate. And so, there's a little bonus to having that, besides the savings
15 and travel time.

16 CHAIRMAN SVINICKI: And --

17 MS. COFFIN: But they've continued unabated.

18 CHAIRMAN SVINICKI: And I assume that's true also about
19 the kind of virtual deployments or rotations of staff to Oak Ridge and Idaho in
20 building some of the competencies around the very different types of reactors
21 that might be developed.

22 That might have been too disruptive pre-COVID to say I'm
23 going to move to Tennessee for a year, but now, if it's virtual, maybe we're
24 able to tap into that a bit more.

1 MS. COFFIN: Yes. And the same for our meetings with our
2 international colleagues, you're able to just bring in a few more people
3 because of that. And so, there's some really good knowledge management
4 that's going on, taking advantage of that.

5 CHAIRMAN SVINICKI: Great, thank you. Dan, you did
6 touch upon strategic workforce planning in your summary towards the end of
7 this panel.

8 Beyond NRAN, could you talk about whether or not NRC is
9 using the analytics and information we're getting out of strategic workforce
10 planning, which has been going on for some time now? Specifically, to
11 targeted mid-career hires, could you talk, are we doing that and if so, could
12 you say a little bit about it?

13 MR. DORMAN: Yes. So, strategic workforce planning has
14 been under development and implementation for several years now, starting
15 with pilots in one of the regions and several headquarters offices, I think in
16 2018, if I recall correctly.

17 And so, at this point, it's being applied across the enterprise.
18 And through that process, we take a look out about five years at what we
19 anticipate the work to be and, therefore, what are the critical skills that we
20 need to accomplish that work?, and a rough sense of how many of those we
21 need and identify where the gaps are.

22 And so, that's being used as we look at openings in the staff
23 and opportunities to cross-train staff into perhaps areas that are still tied to
24 their core, whether it's civil or mechanical or electrical, but maybe give them a

1 new skill that the agency's going to need going forward.

2 So, we are definitely look at that. We have, over the past
3 year, had significantly more hiring across the enterprise. A significant
4 component of that is the NRAN program, to start bringing in new hires, entry
5 level hires.

6 But that doesn't fill all of the needs that we have in the
7 strategic plan. So, mid-level and cross-training is definitely a key component.

8 CHAIRMAN SVINICKI: Okay, great. Thank you very much
9 for that.

10 And I'll just turn to Shaun for a moment, thank you for your
11 presentation. In the next panel, as I mentioned in the opening, we'll hear the
12 results of the staff's Agency Action Review Meeting that they conduct.

13 Part of that is not just looking at the events that occurred
14 over the course of the year, but the agency also commits to and undertakes
15 very significant assessments of the programmatic effectiveness of what we're
16 doing under the ROP. And we'll hear from Mr. King about construction
17 oversight as well.

18 Are the tools and analytics that EMBARK has worked to
19 develop, do you understand them to play a role in making those assessments
20 even more informed than they have been historically?

21 MR. ANDERSON: Yes, I do think the tools that are at least
22 currently available are definitely helpful to help inform the assessments or the
23 answers that needs to be made by the organizations.

24 Just wanted to highlight for the oversight program, we're

1 definitely -- we have a team that's been put together that includes two senior
2 residents and a resident inspector that was just established last week to take
3 a more focused and deliberate look into how we can improve some of the data
4 and tools that we need to help our over oversight program.

5 So, that's something, to answer your question, yes, we do
6 have some tools and we're helping to develop more tools to help that program.

7 CHAIRMAN SVINICKI: Okay, thank you. And thank you all
8 for your presentations again. And now, we will turn to Commissioner Baran.

9 COMMISSIONER BARAN: Thanks. Well, thank you for
10 your presentations. I feel like it's just perfect continuity between the end of
11 the Chairman's remarks and mine, with the thanking for presentations. But I
12 know there's always a lot to cover with the reactor business lines.

13 Maggie, great to see you again, I think maybe the last time
14 I saw you was at ANO, when you were a resident there, and it's great to have
15 a senior resident inspector perspective at this meeting.

16 And I was hoping to ask you a few questions, to start off at
17 least, about how things are going with the pandemic. I know that, for the first
18 few months of the pandemic, residents weren't onsite as often as usual.
19 What's that look like now? How often are you and your resident onsite these
20 days?

21 MS. TOBIN: Yes. So, my resident was recently selected
22 as a permanent senior resident at Beaver Valley, Gwynne. So, I'm providing
23 most of the site coverage solo, with a few weeks here and there as folks from
24 the region are able to come out and help.

1 So, it's mostly just me. Under normal circumstances, I'd
2 say I'd average two to three days a week onsite. But since I'm currently in a
3 refueling outage, that number is closer to six or seven days a week onsite.

4 (Laughter.)

5 MS. TOBIN: But I do want to stress that that's my decision,
6 no one like told me I had to go do that. My comfort level with the number of
7 cases in the local area and how strict the site is with masks made me
8 personally comfortable with doing that.

9 COMMISSIONER BARAN: Have the activities you conduct
10 when you're onsite changed much compared to before the pandemic?

11 MS. TOBIN: I'd say that our time onsite has become more
12 focused, I have a more defined schedule for what I'm doing and more task-
13 oriented, I'm going to go out in the field, I'm going to see this, this, this, and
14 this, and then I'm going to be done with it.

15 So, I tend to try to make it count when I'm onsite and
16 maximize the time in field conducting walkdowns, making sure I'm talking to
17 as many people as I can, things like that.

18 COMMISSIONER BARAN: Yes, and that's, I wanted to ask
19 you about that. In terms of, to the extent you have or you had or you currently
20 have a little less time onsite, you're more focused. What do you see as the
21 highest priorities? Where do you think the agency kind of gets the biggest
22 bang for its buck with your time when you're onsite?

23 MS. TOBIN: I think that plant status is the biggest bang for
24 the buck, rather than strictly inspections. Walking around the plant, touring

1 all the areas, making sure we understand what's going on everywhere onsite.

2 I really think that that is where our -- when you have a very
3 limited amount of time onsite, that is what I have been focusing on, with, like,
4 inspections as available, but really focusing on making sure I understand
5 what's actually happening onsite and that I'm not missing something by doing
6 paperwork reviews or status via plant computer, things like that.

7 COMMISSIONER BARAN: In your presentation, you
8 mentioned conducting some limited remote inspections. Based on your
9 experience, which inspections work well remotely and which ones can't be
10 done as effectively from a distance?

11 MS. TOBIN: I think that a lot of samples can be done at least
12 partially remotely. You always have to review paperwork as part of the
13 sample, so even after you're out in the field, when you come back, there's still
14 paperwork. So, I would say that most samples can be done partially
15 remotely.

16 For example, you go out in the field, you watch them do the
17 surveillance or PMT or whatever it is that they're testing onsite, and then you
18 get the completed paperwork and make sure that the paperwork has been
19 filled out properly.

20 So, the paperwork part, I think for almost every sample can
21 be done offsite. And that way, you also maximize your time onsite with in the
22 field rather than sitting at your computer kind of work.

23 COMMISSIONER BARAN: You talked a little bit about the
24 value of having an onsite NRC presence. Tell us more about that, what do

1 you see as the main benefit of having inspectors present onsite?

2 MS. TOBIN: I think it kind of goes hand-in-hand with my
3 belief that our most important thing is plant status and making sure we
4 understand it. I think the biggest benefit of having an inspector onsite is to
5 just be present.

6 Knowing the operators, knowing the maintenance crews,
7 knowing the folks who are onsite, and really getting to know the culture of the
8 plant, strengths, weaknesses, where they're working to improve, is really
9 important, especially in the event that we're called on to perform our incident
10 response duties. That's the most important piece, I think.

11 Having the ability to have someone there responding to the
12 site gives the NRC and the public confidence. I think that's an important
13 piece of it too, that we understand what's going on, we're not missing things.

14 I'll also add that it's important to have touchpoints onsite for
15 things like allegations and Safety Conscious Work Environment concerns, to
16 make sure that if someone is having a problem, they know that we're there
17 and that we can help.

18 So, actually, when COVID started and we started limiting
19 our time onsite, I put a note on the door that said, call my cell phone if you
20 need me. I haven't gotten any calls, but it's there so that folks at least know
21 that even though I'm not onsite, I'm still available 24/7 if anyone needs to call
22 me for an allegation or something.

23 COMMISSIONER BARAN: Great. Thanks so much, I
24 appreciate hearing your thoughts on that.

1 Ho, I had a few questions about a couple of ongoing staff
2 working groups. One of them has been reviewing the Problem Identification
3 and Resolution inspection, PI&R. This is, of course, a critical inspection that
4 evaluates the adequacy of a nuclear power plant's Corrective Action Program,
5 and it's the only baseline NRC inspection that looks at a plant's safety culture.

6 What's the status of the PI&R working group and what is it
7 finding and recommending?

8 MR. NIEH: Okay, thank you, Commissioner. So, the PI&R
9 working group, as noted in SECY 19-0067, we had committed to do a holistic
10 review of the Problem Identification and Resolution set of inspections, which,
11 as you point out, are a very important core set of inspections that we perform.

12 So, the working group has evaluated how the inspections
13 are being performed in the regions, in terms of identifying areas for potential
14 improvements to the program. And they're in the process of documenting the
15 results of their work. And they've provided that to the regions for comments.

16 So, it's going through an internal review process, and I do
17 expect to receive a document from the working group in the very near future,
18 actually, that we will make publicly available, that will contain the
19 recommendations of what this group thinks could be considered in terms of
20 improving how that inspection program is implemented.

21 COMMISSIONER BARAN: Okay. And there's a separate
22 staff working group looking at the Cross-Cutting Issues Program. How is that
23 effort coming along and do we have a sense at this point what they're finding
24 and what they're going to be recommending?

1 MR. NIEH: Similarly, just like the Problem Identification and
2 Resolution working group, they're developing their recommendations, again,
3 to transmit to me and NRR, and then, we'll make that publicly available.

4 And their group and what they've gone to look at was really
5 the effectiveness of this Cross-Cutting Issues Program, right? It has two
6 objectives. One is to inform the licensee of potentially declining performance
7 in the cross-cutting areas. And then, the second is to encourage them to do
8 something about it.

9 So, what this group has found, the program is generally
10 effective. We can kind of look at some potential adjustments to the program
11 to look at how sensitive it is to changes in the cross-cutting areas.

12 So, I do look forward, Commissioner, to receiving both of
13 those reports. They will get a very thorough, objective review and if there are
14 things that we'll implement, we'll do that in a very transparent way and we'll
15 have the meetings with the industry as well as other external stakeholders on
16 that.

17 COMMISSIONER BARAN: Great. Thanks for the update,
18 Ho. That's all I had, Chairman.

19 CHAIRMAN SVINICKI: Okay. Thank you very much. By
20 our schedule, we were going to be gracious to ourselves and allow ourselves
21 a little five-minute break before hearing on the next staff topic. So, we will
22 reconvene at 10:20. Thank you.

23 (Whereupon, the above-entitled matter went off the record
24 at 10:16 a.m. and resumed at 10:23 a.m.)

1 CHAIRMAN SVINICKI: All right. Well, thank you,
2 everyone. We will now reconvene to hear a presentation from the NRC staff
3 on the Agency Action Review Meeting, and we will be led off once again by
4 Dan Dorman. Dan, please take it away.

5 MR. DORMAN: Thank you, Chairman, and good morning
6 again, Chairman and Commissioners. During this panel, as the Chairman
7 said, we will discuss the results of the Agency Action Review Meeting, which
8 was conducted on May 6 of this year. Next slide, please.

9 In the Agency Action Review Meeting, senior agency
10 management from the Office of the Executive Director of Operations, the
11 program offices, and the four regions participated in bringing together a broad
12 collection of knowledge and experience regarding NRC's performance during
13 2019.

14 This year, no operating reactor, construction reactor, or
15 materials licensee met the threshold for discussion at the AARM. So, the
16 AARM this year offered a unique opportunity for the senior leadership of the
17 agency to focus and reflect on the effectiveness of our oversight programs,
18 including any potential areas for improvement.

19 Overall, the AARM participants confirmed that the agency's
20 oversight programs continue to be effective, continue to demand a
21 comprehensive inspection and/or evaluation process, and continue to apply
22 appropriate resources to the most risk-significant issues.

23 Additionally, keeping in mind that continuous improvement
24 is an essential aspect of our oversight programs, the AARM participants

1 critically evaluated a number of changes that have been made to these
2 programs in recent years.

3 For example, given the downward trend in ROP inspection
4 findings since 2015, AARM participants discussed the adjustments to the ROP
5 that may have impacted this trend. We confirmed that the inspection
6 program and inspectors' ability to assess licensee performance remains
7 robust and effective.

8 AARM participants also discussed and evaluated changes
9 in the Nuclear Materials and Waste Safety Program, such as implementation
10 of an innovative and risk-informed evolution of evaluation of the Nuclear
11 Material Users Licensing and Inspection Program.

12 While you recently received a briefing on the agency's
13 actions during the COVID public health emergency, and while the focus of this
14 briefing is on the agency's oversight program for 2019, I did want to take a
15 moment to note that the staff continues to monitor the progress of our
16 oversight programs in 2020, to ensure that the right guidance is in place to
17 keep our staff safe, while accomplishing our safety and security mission.

18 The headquarters, program offices, and regions are
19 partnering to mitigate COVID-19 public health emergency impacts to the
20 materials and reactor inspections, providing for remote inspections where
21 appropriate.

22 We also continue to monitor ROP baseline inspection
23 completion and as of Monday of this week, 79 percent of the scheduled
24 minimum baseline inspections for calendar year 2020 have been completed.

1 Nuclear materials inspections continue as well, with
2 activities being completed onsite, remotely, or remotely with onsite follow-up,
3 as appropriate.

4 Staff continues to adapt their inspection processes within
5 the framework of the applicable inspection manual chapters, to implement the
6 Nuclear Materials and Waste Safety Program's inspection oversight program.

7 Next slide, please.

8 With me here today to talk in more detail about these
9 agenda items, we have Kevin Williams, the director of the Division of Materials
10 Safety, Security, State, and Tribal Programs, in the Office of Nuclear Material
11 Safety and Safeguards. Kevin will be presenting on the 2019 Nuclear
12 Materials and Waste Safety Program performance and trend analysis.

13 Directly behind me, Chris Miller, the director of the Division
14 of Reactor Oversight, will be presenting on the 2019 ROP self-assessment
15 program results and trends in inspection findings.

16 And Mike King, the director of the Vogtle Project Office in
17 the Office of Nuclear Reactor Regulation will be presenting on the 2019
18 construction Reactor Oversight Process self-assessment results and will
19 provide an update on the inspection progress and lessons learned for Vogtle
20 Units 3 and 4 as they near construction completion.

21 Now, I will turn the discussion over to Kevin Williams.

22 MR. WILLIAMS: Thank you, Dan. Good morning,
23 Chairman and Commissioners. As previously stated, my name is Kevin
24 Williams and I am the director of MSSST.

1 I will be highlighting strategic goals and performance
2 measures, nuclear material and fuel cycle events, abnormal occurrences, and
3 programmatic innovations in the Nuclear Materials and Waste Safety
4 Program. A written summary of the complete annual assessment has been
5 issued in SECY 20-0036.

6 The Nuclear Materials and Waste Safety Programs include
7 a large number of licensees performing a wide variety of activities, involving
8 industrial, academic, medical uses of radioactive material, as well as fuel cycle
9 licensees. Next slide.

10 The evaluation process is ongoing and includes
11 identification of operational performance trends, significant licensee
12 performance issues, and NRC program issues warranting management
13 awareness. We also look at policy and processes to evaluate the need to
14 enhance the programmatic elements, based upon performance and generic
15 issues.

16 For fiscal year 2019, there were no nuclear materials
17 licensees that met the significant performance issue criteria. Next slide.

18 The staff focused on verification and validation of data
19 generated by the NRC and the Agreement States to determine the impact on
20 strategic outcomes and performance measures related to nuclear materials
21 events.

22 While the agency met its performance goals, there were two
23 areas related to safety and security that I'd like to highlight.

24 The event related to safety involved an internal radiation

1 exposure to a licensee's employee who was attempting to clean up a small,
2 rusty area of contamination. The licensee attributed the overexposure to
3 inadequate procedures, poor emergency training, and the failure of a high
4 efficiency particulate air vacuum.

5 As a result, the licensee revised its radiation protection and
6 emergency procedures. This event did not exceed the NRC's performance
7 goal, which is less than or equal to three abnormal occurrences.

8 The event related to security involved the theft of three
9 industrial radiography cameras by a licensee's employee. The devices were
10 recovered, and the licensee upgraded its access security measures to prevent
11 a single authorized individual from removing the devices.

12 This did exceed the goal of zero occurrences. The NMSS
13 staff does not think this event is indicative of a deficiency in requirements, nor
14 is it a programmatic issue. Next slide.

15 The figure on the left of this slide shows the total number of
16 nuclear materials events for each of the last ten years. The light blue bars
17 are the total number of NRC events for each year and the dark blue bars are
18 the total number of Agreement States events.

19 For reference, the Agreement States provide oversight for
20 approximately 88 percent of materials licensees.

21 The evaluation of the data over the last ten years includes a
22 statistically significant decrease in the overall number of NRC-regulated
23 events. This trend is consistent with the decreasing number of NRC
24 licensees, as the number of Agreement States increase. In addition, we

1 continue to share operating experience with the goal of decreasing the number
2 of events.

3 In relation to fuel cycle, the figure on the right of this slide
4 shows the total number of fuel cycle operating events over the last five years.
5 The total number has varied, with an average around eight per year, with a
6 total of nine for 2019. The nine events were distributed among criticality
7 safety, operational safety, and materials control and accountability. Next
8 slide.

9 In fiscal year 2019, the materials enforcement program
10 focused on maintaining consistency in our escalated enforcement actions, and
11 enforcement conferences to ensure licensees are committed to doing the right
12 thing at all levels.

13 We further focused on increasing participation of the
14 regional state liaison officers related to activities within an Agreement State.

15 The total number of actions issued in fiscal year 2019 were
16 largely influenced by cases involving gauge users and radiographers. The
17 number of escalated enforcement actions issued to gauge users decreased
18 from ten to seven, and radiography cases doubled from six to 12, in regards
19 to escalated enforcement actions.

20 However, none of these trends indicate significant program
21 issues, as small year-to-year fluctuations are typical. The program is also
22 involved in a number of updates to the enforcement policy, which are expected
23 to be completed in early fiscal year 2021. Next slide.

24 The annual assessment of Nuclear Materials and Waste

1 Safety Program also includes an evaluation of the abnormal occurrences. No
2 significant performance trends or generic concerns were identified over the
3 last ten years.

4 In the annual abnormal occurrence report, the staff reported
5 the following, that there were nine events involving nuclear materials in
6 Agreement States. Seven were medical events, one event involved human
7 exposure, and the remaining event involved the stolen radiography cameras.

8 Although most AOs are medical events, it is not an
9 indication of a negative performance trend. The number of medical AOs is
10 small relative to the millions of activities involving the use of radioactive
11 material.

12 Nonetheless, in the last year, the staff has issued several
13 generic communications to alert the medical community to the medical events
14 that have occurred.

15 As part of our ongoing activities to enhance the program,
16 the staff recommended and the Commission approved the development and
17 proposal of a limited revision to the AO criteria in the medical event and source
18 security areas, to align these criteria with events that are significant from the
19 standpoint of public health and safety. Next slide.

20 The Nuclear Materials and Waste Safety Program
21 conducted programmatic self-assessments and innovations to enhance
22 inspection and licensing programs. We initiated measures to ensure we are
23 further risk-informing our processes and including very low safety significant
24 issue resolution into our processes.

1 Recognizing the need to identify potential program
2 enhancements and to continue to make fuel cycle licensing and oversight
3 programs more risk-informed, the staff initiated a building a smarter fuel cycle
4 program effort in April of 2019.

5 We conducted an assessment of the fuel cycle oversight
6 program to improve efficiency, while further integrating risk-informed insights
7 to ensure the staff remained focused on the most safety-significant elements
8 and achieving the mission of reasonable assurance of adequate protection.
9 Full implementation is planned for January of 2021.

10 We also evaluated and enhanced the independent spent
11 fuel storage inspection program. The recommended enhancement includes
12 changes to inspection frequency, level of effort, inspector training and
13 qualification, and a budget structure used to fund the program that will risk-
14 inform our process.

15 An NRC staff working group was formed with individuals
16 representing all four regions and NRC headquarters that includes specially
17 trained and qualified ISFSI inspectors and a resident inspector to evaluate and
18 enhance the NRC's ISFSI inspection program.

19 Feedback was solicited from internal and external
20 stakeholders on the proposed revisions at public meetings. The staff has
21 planned an additional webinar to discuss the draft recommendations and will
22 consider input received during the webinar before any final decisions are
23 made. Full implementation is planned for January of 2021.

24 The Nuclear Materials Users program also continues to

1 focus on implementing an innovative and risk-informed evolution of the
2 Nuclear Materials Users Licensing and Inspection program in a phased
3 approach.

4 Phase I and II focused on enhancing coordination with
5 Agreement States. Our current focus for Phase III will focus on evaluating
6 and incorporating risk performance insights into the materials inspection
7 program, exploring the use of collective inspection and oversight efforts
8 across the national materials program, and incorporating strategies to provide
9 a clear disposition of low safety significant issues and inspection programs,
10 processes, and procedures. Next slide.

11 Based on a review of event data and assessment of key
12 events, the staff concludes that the Nuclear Materials Waste and Safety
13 Program is functioning effectively to protect public health and safety.

14 There have been a number of program enhancements that
15 have the common theme of change. Change to our process, what we do,
16 and how we do it. Change to the people, how we accomplish our work.
17 Change to the papers, documenting what we do.

18 As we continue to implement change, our people,
19 innovation, transformation, as well as incorporating risk insights, will serve as
20 our guide. We will continue to address enterprise risk, schedule risk, and risk
21 smart tools as we work smarter.

22 Thank you and I will now turn it over to Chris Miller.

23 MR. MILLER: Thank you, Kevin. Good morning, Chairman
24 and Commissioners. I'm pleased to be here discussing the results of the

1 2019 Reactor Oversight Process self-assessment, the plan for the 2020 ROP
2 self-assessment that's currently underway, and the trends we've observed in
3 the findings since 2015, which was also a topic of our meeting last year. Next
4 slide, please.

5 Put simply, the purpose of the ROP self-assessment is to
6 evaluate the effectiveness of the ROP each year, learn from these
7 evaluations, and to improve the ROP accordingly.

8 In calendar year 2019, the staff conducted a limited ROP
9 self-assessment and documented the results in SECY 20-0040. The
10 calendar year 2019 ROP self-assessment activities included collecting and
11 analyzing the ROP performance metrics, performing ROP program area
12 evaluations, and conducting an effectiveness review of the Cross-Cutting
13 Issues Program.

14 While the staff assessed two ROP performance metrics as
15 meeting the red threshold in the areas of significance determination process
16 timeliness and inspection program feedback timeliness, the staff determined
17 that neither indicated programmatic weaknesses due to external impacts on
18 the SDP timeliness. And in the case of the inspection program feedback,
19 significant and sustained improvement in the process and in the timeliness.

20 Staff completed program area evaluations of the four major
21 program areas, inspection, assessment, performance indicators, and the
22 significance determination process, determining all four areas to be effective.

23 And as part of the ROP self-assessment, the staff began an
24 effectiveness review of the Cross-Cutting Issues Program for 2019.

1 The staff completed the majority of its work and the final
2 report, as you heard from Ho, is in routing for review. After we review and
3 discuss the final report, we will consider what changes may be needed,
4 discuss any plans for changes with stakeholders, and take appropriate
5 notification actions or permissions with the Commission.

6 Through these reviews and assessments, the staff found
7 that the ROP was effective, meeting strategic goals of ensuring safety and
8 security by providing objective, risk-informed, understandable, and predictable
9 oversight, meeting its intended outcomes. Next slide, please.

10 Along with completing all of the calendar year 2019 self-
11 assessment activities, the staff also completed a comprehensive review of the
12 self-assessment program itself, notifying the Commission of the resulting
13 changes in the program in SECY 20-0039. We have implemented these
14 changes to the program for the calendar year 2020 ROP self-assessment.

15 The calendar year 2020 planned ROP self-assessment
16 activities, under the revised program, include the streamlined ROP metrics,
17 new ROP data trending program, ROP program area evaluations, and the new
18 ROP implementation audit, which this year will be in Region IV.

19 We're pleased to be moving this to a more data-driven
20 review, with the data analysis tools to support that effort. Next slide, please.

21 Next, I will address the continued decreasing trend in NRC
22 inspection findings since 2015. The downward trend continues to be evident
23 across the baseline inspection procedures, the seven ROP cornerstones, and
24 all four regions.

1 The staff has identified potential drivers for this downward
2 trend, including adjustments to the ROP, such as updated guidance on backfit,
3 cross-regional panels to gain consistency across regions on new or
4 particularly challenging findings, increased management oversight of the
5 findings determination process, and updated guidance on the minor/more than
6 minor threshold.

7 We continue to find agency oversight efforts to be effective.
8 While documented findings have decreased, the overall inspection hours and
9 sample requirements have not significantly changed in the baseline program.

10 Inspectors continue to monitor performance, communicate
11 observations to licensees, and identify performance deficiencies that are
12 entered into licensee Corrective Action Programs, such as Maggie detailed in
13 her example, even if those issues are not documented as inspection findings.
14 Next slide, please.

15 During the briefing for last year's Agency Action Review
16 Meeting, we discussed that inspection findings per site had decreased about
17 42 percent from 2015 to 2018. In 2019, that trend continued, with findings
18 per site decreasing further to about 50 percent of 2015 levels.

19 The staff reviewed the trend in findings resulting from actual
20 events versus the trend in findings identified by inspectors. The review
21 determined that there has been a drop in NRC-identified findings since 2015
22 that has been driving the overall decrease in findings, while the number of self-
23 revealed findings has remained relatively flat from 2015 to 2019.

24 Industry performance in some areas have improved,

1 especially if you look over the 30-year period. The trend in reactor trips, even
2 over the past ten years, is down, with a decrease from 2010 to 2017 and then
3 a slight trend up after that.

4 For the specific period of 2015 to 2020, the scram trend has
5 been relatively flat, even as the number of findings has continued decreasing.
6 In addition, the 2019 NRC accident sequence precursor report indicates better
7 industry performance regarding accident precursors over a ten-year period.

8 We find there are no significant individual plant outliers, as
9 no licensees are in Column 3 or 4, and the NRC continues to take appropriate
10 action in response to licensee performance using the action matrix.

11 In summary, while our findings are decreasing, we find no
12 impacts on continued safe operations. Based on our significant inspection
13 activities and trend reviews, we don't see significant negative trends in overall
14 licensee performance as we monitor scrams, licensee event reports, operating
15 experience, and findings trends.

16 The flexible risk-informed baseline inspection program, as
17 executed by resident and regional inspectors, remains effective and robust.
18 Next slide, please.

19 And we are pleased to have talented staff trained and
20 working on improvements in data analytics and automation and visualization
21 tools.

22 In 2019, the staff leveraged these skills to improve existing
23 displays and develop new dashboards and tools for inspection and operating
24 experience trends, including inspection findings, industry scrams, licensee

1 event reports, and inspection hours charged by plant.

2 The new data trending portion of the ROP self-assessment
3 program is a great example of leveraging these data analysis and visualization
4 tools into our decision-making and evaluation processes.

5 Working with OCIO and EMBARK Venture Studios under
6 the Mission Analytics Portal project, the staff continued to develop prototype
7 dashboards for other ROP data user needs, so that resident and regional
8 inspectors can improve their activities with more efficient risk-informed data-
9 driven information.

10 We hope to give the inspectors the ability to quickly
11 determine the highest contributors to risk at a site and more efficiently risk-
12 inform their inspection sampling.

13 This concludes my presentation and I'll turn it over to Mike
14 King.

15 MR. KING: Thanks, Chris. Good morning, Chairman,
16 Commissioners.

17 It's my privilege to be here today to give you the results of
18 the 2019 construction ROP self-assessment, share with you some of the
19 significant improvements we've made to the program as a result of that
20 assessment, and share with you a little bit about the preparations we've been
21 making behind the scenes for eventual possible transition from construction
22 to operations and transition to the ROP for Vogtle 3 and 4. Next slide.

23 So, based on the results of roughly 5,000 hours of direct
24 inspection activity during calendar year 2019, Vogtle's performance remained

1 in Column 1, or the licensee response column, of the construction assessment
2 matrix, meaning that all inspection findings during that period were green.

3 Since 2012, we have accumulated roughly 44,000 hours of
4 direct inspection across Units 3 and 4. As you are aware, construction for
5 Unit 3 is nearing completion, and as a result, in fact, just last week, we updated
6 you on the status of inspection and licensing activities, what we call our three-
7 month Commission memo, in advance of the anticipated all ITAAC complete
8 notification.

9 And for those listening in from the public that may not be
10 familiar with the term ITAAC, it's the inspections, testing, analysis, and
11 associated acceptance criteria which demonstrate that the plant has been built
12 in accordance with its approved design.

13 In that memo, we highlighted that we are approximately 85
14 percent complete with our preplanned ITAAC inspections and of the 399 total
15 ITAAC that need to be closed, we have verified 142 of them.

16 As the only construction site under the construction ROP,
17 and the first ever Part 52 construction project, we're learning valuable lessons
18 through the assessment program and incorporating those lessons. And I'll
19 share some of those with you.

20 We're continuing to successfully coordinate the oversight of
21 the Vogtle project through our Vogtle Readiness Group, or what we call the
22 VRG. The VRG is co-chaired by Chris Miller from the Division of Reactor
23 Oversight in NRR, Region II, Division of Construction Oversight, and the
24 Vogtle Project Office, with help from several men and women from across the

1 agency in several offices.

2 So, we believe we're prepared and ready to accomplish our
3 regulatory obligations, but we are continuing to adapt to the realities,
4 particularly in light of COVID and other impacts, and the nature of construction
5 as we go. Next slide, please.

6 For calendar year 2019, we met all program metrics,
7 however, our self-assessment did identify a need to adapt our program to
8 reflect the realities of the construction environment. For example, we
9 identified the need to revise our guidance documents to add flexibility to be
10 smarter and more risk-informed in how we accomplish our remaining
11 inspection activities.

12 As part of this, we took a critical look at how we decide which
13 ITAAC to inspect, which we call our targeted ITAAC, and our plans for
14 inspecting those ITAAC.

15 From talking with inspectors in-field, we learned that our
16 ITAAC targeting guidance was overly constraining and having them spend
17 some time inspecting certain things that didn't make a whole lot of sense from
18 a safety perspective. So, we weren't achieving a whole lot of safety benefit
19 from some of the activities they were doing.

20 So, we also identified opportunities to optimize the manner
21 in which we accomplish those inspections, by combining inspections of
22 components and tests that were similar enough that we should be
23 accomplishing the same activity.

24 As a result, we incorporated the updates to our inspection

1 guidance to enable us to inspect in a smarter way.

2 Our self-assessment also identified program updates
3 needed to make our handling of minor construction inspection issues more
4 consistent with what is done under the operating reactor inspection program.

5 We also identified the need to address an inconsistency in
6 how we handle ITAAC findings that are related to ITAAC maintenance issues.

7 As I mentioned, we rolled up our sleeves and really took a
8 focused look at how we could improve the remaining inspection plans across
9 the full suite of inspections that we do. We not only do ITAAC inspections,
10 but we inspect the operational programs and the licensee's initial test program.

11 Region II revamped their civil, mechanical, and electrical
12 inspection plans to make them more flexible by removing overly specific
13 samples and grouping inspection activities to maximize the benefit of our
14 inspection time.

15 We incorporated a mechanism to better track our progress
16 through the Vogtle Digital Dashboard, which we've shared with you before in
17 Commission meetings, and through the use of what we call burndown curves,
18 which the Vogtle Readiness Group frequently monitors to assess our
19 progress.

20 While these efforts I explained are critical to our success in
21 accomplishing the inspections which are needed for the project, the region is
22 continuing to evaluate and reassess remaining inspections done,
23 incorporating the lessons as we learn them. Next slide, please.

24 The realities of a dynamic construction environment, where

1 a lot of things come together at the end and the challenges of implementing a
2 program built largely focused on ITAAC required us to take actions to improve
3 our coordination and better align our resources with constantly moving target
4 inspections.

5 We increased communications and coordination with the
6 licensee through multiple inspection coordination meetings to ensure no
7 surprises on the scope and resources needed to support our inspections, and
8 we implemented a system where licensees notify us when pre-identified
9 inspection samples were ready for inspection. This has helped us to drive
10 awareness and to reduce inspector downtime.

11 All remaining significant and team inspections have been
12 carefully planned and coordinated with the best available schedule
13 information.

14 And finally, Region II has implemented a strategy to provide
15 the necessary surge in inspection resources that we anticipate near the end
16 of construction. The strategy leverages inspectors in other regions to provide
17 backup support for Region II inspection staff, which we anticipate will be
18 diverted to support Vogtle 3 and 4 efforts. Next slide, please.

19 As was mentioned earlier, we have also had to adjust to the
20 new realities of the COVID-19 environment. It has had an impact to
21 construction, as site staff have adjusted to social distancing and quarantine
22 measures, and it has impacted our own inspections.

23 We have leveraged technology to conduct more inspections
24 remotely than we did before, while conducting in-the-field inspections of

1 important activities.

2 We are focused on maintaining the quality of our
3 inspections, given our new reality, to provide for reasonable assurance that
4 we can effectively monitor the quality of construction and accomplish our
5 regulatory obligations.

6 The larger number of ITAAC being completed towards the
7 end of construction schedule also compresses NRC staff load later in the year.
8 We're taking measures to ensure we have the resources we need for the
9 increased workload anticipated over the holiday periods and are proactively
10 looking for ways to accomplish all or part of the remaining inspections ahead
11 of the ITAAC closures. Next slide, please.

12 In parallel with construction, we're also planning for
13 transition to operations. We established a working group to refine our
14 planning for the transition, while incorporating lessons learned from the Watts
15 Bar experience.

16 We challenged ourselves to anticipate decisions we need to
17 make today to provide for a smooth transition.

18 We developed a memo to capture and communicate those
19 decisions on things such as the proper handling of ROP cornerstones and
20 performance indicators, roles and responsibilities of the different organizations
21 during the transition period, and how we would coordinate inspections across
22 all four units. We conducted a public meeting to share the plan and issued
23 the memo on August 14.

24 We also adjusted the ROP baseline inspection sample sizes

1 to account for the AP1000 design. As you are aware, this was not a
2 fundamental departure from the proven ROP baseline inspection program.
3 Rather, it was adjustments to those sample sizes to account for the fewer
4 number of components and the simpler design of the AP1000.

5 We informed the Commission in June, through a SECY
6 paper, of the changes and we are currently updating the procedures and
7 guidance to reflect these changes. Next slide, please.

8 With the first potential completion of Part 52 licensing
9 process at Vogtle, we're capturing valuable lessons learned and facilitating
10 knowledge management to be used to further improve the construction ROP
11 and to prepare for the future new advanced reactors.

12 The experience gleaned from Vogtle construction highlights
13 that adopting a more flexible approach to how we inspect ITAAC allows the
14 staff to better focus on risk-significant activities, while maintaining adequate
15 coverage of the broad range of ITAAC-related activities, enabling us to
16 conduct our inspections in a smarter way.

17 As the changes we have recently made to the program
18 highlight, we're not waiting to incorporate lessons learned from Vogtle
19 construction and are making incremental improvements as we go, where
20 appropriate.

21 However, we do see the benefit of pausing and taking a
22 fresh look to do a lessons learned after the possible 103(g) decision for Unit
23 3. Until that time, we've initiated efforts to capture insights and feedback from
24 staff who may be departing before that point, so that we can include that as

1 part of our lessons learned effort.

2 We're also in the early stages of engagement with other
3 divisions in the office, as we look ahead to what oversight for advanced
4 reactors should look like, informed by our experience with Vogtle.

5 Lessons learned with licensing of Vogtle have already
6 yielded some improvements in licensing area. For example, the scope and
7 breadth of ITAAC for the NuScale design was informed by the experience we
8 gleaned from ITAAC for Vogtle and other earlier combined operating license
9 applicants.

10 In short, we're doing what we can today to prepare for the
11 road ahead for new and advanced reactors.

12 With that, I'll turn the presentation back over to Dan. Dan?

13 MR. DORMAN: Thank you, Mike. In closing, let me
14 reiterate that we met all the objectives of the Agency Action Review Meeting
15 process, that through the discussions at the AARM, the senior leadership
16 affirmed that the agency's completed and planned oversight actions are
17 appropriate and consistent with our oversight processes, and that those
18 processes are effective.

19 As you've heard today, we continue to look for
20 improvements to our oversight programs, especially in the areas of leveraging
21 technology and data analysis and lessons learned from significant oversight
22 activities.

23 And I particularly want to thank the Office of the Chief
24 Information Officer, who's not in these panels today, but whose great work is

1 really enabling us to do all that leveraging technology and data analytics.

2 I also want to thank all the office directors and regional
3 administrators for their engagement in the AARM, as well as the staff whose
4 efforts are so essential in coordinating the inputs to the meeting, the conduct
5 of the meeting, and the preparation for this Commission briefing.

6 Finally, I want to take a moment to say thank you to all the
7 resident and senior resident inspectors at the front lines of our agency mission.
8 We always appreciate their contributions, but especially during this COVID
9 public health emergency.

10 So, thank you, Chairman Svinicki and Commissioners, and
11 we're ready for your questions.

12 CHAIRMAN SVINICKI: Thank you for that, Dan. And
13 before I turn it over for the Q&A session, I'll just take a moment of Chairman
14 prerogative, because I neglected to communicate this during the COVID
15 meeting.

16 But you closed with a comment that I want to add to, which
17 is to express on behalf of the Commission our gratitude to resident inspectors
18 and senior resident inspectors, as you mentioned, but also to both
19 headquarters and regional operation officers, to region-based inspectors that
20 have had to be deployed, particularly in the early days of the public health
21 emergency.

22 While we have acknowledged and celebrated that for the
23 bulk of NRC employees our transitioned to work from home was very
24 seamless, we're also very blessed that our work duties make our work

1 amenable to doing that.

2 We have essential staff here, all our staff is essential, but
3 we have folks that their work duties are going to require them to go out onto
4 the front lines, despite uncertainties about the public health emergency, of
5 course, while practicing all the appropriate public health recommendations.

6 But all of them were not maybe able to take part in the 100
7 percent work from home activity, they were uniquely called to step forward.
8 And the Commission, I know, to a person is very grateful for that work.

9 So, with that, that was my moment of Chairman prerogative
10 and I shall turn it over to Commissioner Wright.

11 (Laughter.)

12 COMMISSIONER WRIGHT: Thank you, Chairman, thank
13 you for that. And since I'm looking in his direction, I'm going to start with Mike.

14 So, Mike, thank you for your presentation and before I ask
15 you the question, I want to, I'd be remiss if I didn't thank you and the Vogtle
16 Project Office and Region II and the staff for their dedicated work in keeping
17 us on track.

18 I know there's a lot of movement, changing of staff, shifting
19 of dates, and oh yeah, there's a pandemic going on that requires a lot of agility
20 on everybody's part and I want you to know that the staff's work does not go
21 unnoticed.

22 MR. KING: Thank you.

23 COMMISSIONER WRIGHT: And that's from the residents
24 in the field to the reviewers in the office.

1 So, you spoke about the adjustments made to the baseline
2 inspection program based on the simpler and safer technology of the AP1000
3 design and how it might be used for future small modular and advanced
4 reactors.

5 And I'm not going to ask the obvious question, I want to ask
6 it a little differently. Have you seen any lessons learned or insights from that
7 effort that could apply to the ROP for current operating fleet?

8 MR. KING: Well, I think the effort which was done to bring
9 together a working group, to really challenge ourselves and say, okay, based
10 on the number of components in this design, what's different about this design
11 than legacy fleet?

12 That approach, I think was probably something we could
13 use for future designs, to adjust and forecast what we think our level of
14 inspection should be for those, perhaps, simpler, more passive based designs
15 that are coming in the future.

16 So, in terms of getting feedback from where we ended up,
17 obviously, time will provide that feedback, once the first unit transitions to
18 operations, so we get the chance.

19 And so, we have built into the program some periodic looks
20 as we implement the new Reactor Oversight Process at Vogtle AP1000 units,
21 to bake-in that look, to do just exactly what you're saying, what are we learning
22 from our experience of this first application of the new sample sizes at Vogtle?
23 Do we have it right? Do we need to adjust?

24 And I think we'll probably learn some valuable lessons as

1 we go along, and we adapt based on that.

2 COMMISSIONER WRIGHT: Thank you. I'll turn over here,
3 hey, Kevin, how are you? Thank you for your presentation as well and
4 congratulations on the new position, too.

5 MR. WILLIAMS: Thank you.

6 COMMISSIONER WRIGHT: So, you mentioned the self-
7 assessments for the ISFSI and fuel cycle programs. The staff is also
8 updating the inspection manual chapters, I guess, for materials users. Can
9 you tell me about how the changes to these programs were informed by trends
10 in licensee performance?

11 MR. WILLIAMS: So, thank you for that. What we did is we
12 established a number of working groups. We tried to get a broad spectrum
13 of inputs, whether it's operating experience, whether it's smarter ways and
14 better ways of doing things, we focused on our best resource, which is the
15 staff who work these things every day.

16 And so, we looked at the programs themselves and where
17 could we inform these programs, in terms of we're looking at it from a risk
18 perspective, a safety significance perspective, operating experiences, things
19 that have gone in where the inspectors have had some good runtime, whether
20 that's an onsite inspector, resident inspector, license reviewer. So, a lot of
21 those things, we took into play as we looked to update our processes.

22 We also looked at interfacing with the stakeholders, whether
23 that's internal, external. In some areas, if you look at Manual 2800 for the
24 materials, we've looking to the Agreement States, how have they been able

1 to implement the program? How do we effectively implement risk into the
2 program?

3 So, all of those inputs, we've taken to help assist us in
4 making an informed decision.

5 COMMISSIONER WRIGHT: Thank you. Chris, good
6 morning.

7 MR. MILLER: Good morning, sir.

8 COMMISSIONER WRIGHT: For me, it's just great to see
9 people in person. This is really great.

10 (Laughter.)

11 COMMISSIONER WRIGHT: So, as you mentioned, the
12 staff's being doing a lot of work on effectiveness reviews in the area, not only
13 the Cross-Cutting Issues Program, but also Problem Identification and
14 Resolution.

15 So, I understand that we have not made any changes right
16 now to the cross-cutting program since 2015, could you share any initial
17 insights you have on the cross-cutting program review right now and the
18 effectiveness of those 2015 changes?

19 MR. MILLER: Thank you for the question, Commissioner.
20 Yes, we were happy to embark on this, because it had been 2015 that we
21 made the suite of changes.

22 The inspection or the cross-regional team, and actually, we
23 had members from Research, we had NRR, we had lots of folks looking at it.
24 And we got some really good data analysis to do two things.

1 One, to say, is the current program as it is effective or not?
2 And the answer to that was a resounding, yes. It is effective, the data show
3 that it's accomplishing those two purposes that Ho outlined before. It's
4 making us aware of performance that may be declining and it's giving incentive
5 to do something about that.

6 However, some of the data would show that the sensitivity
7 is not quite what it was before 2015 and the changes, and that's going to come
8 out in the report, we'll have all that analyzed.

9 So, I'd like to see what the team recommends. I know
10 some of it is clarity in how you implement the program, and that we can always
11 benefit from, both the NRC and licensees.

12 But beyond that, there might be some tweaks in the program
13 to make it easier to implement, maybe make it a little bit more sensitive, and
14 as Ho mentioned, we're going to be analyzing those reports, we're going to be
15 making decisions on, okay, which one of these kinds of recommendations that
16 they're coming up with might make it more effective?

17 COMMISSIONER WRIGHT: Do you foresee anything that
18 you're reviewing in these areas impacting the ROP enhancement paper that's
19 currently before the Commission?

20 MR. MILLER: No, as -- thank you, Commissioner, another
21 good question. Nothing that we saw from our oversight efforts would tell us
22 that the conclusions we drew in the SECY 19-0067 would be different based
23 on our review.

24 We were happy to do the look as we promised in that SECY,

1 but nothing significant regarding our recommendations to the Commission
2 came out of it.

3 COMMISSIONER WRIGHT: All right. I'm going to stay with
4 you.

5 MR. MILLER: Sure.

6 COMMISSIONER WRIGHT: Got one more or so. So, in
7 the first panel, and also in this one, we've heard about how data's going to be
8 used and it's going to be made public in areas, some of these dashboards that
9 have been talked about.

10 And you talked -- when I see a downward trend in findings,
11 like you discussed related to the ROP, I don't assume it's necessarily a bad
12 thing, right, or a negative thing? And you mentioned several drivers for the
13 trend as well.

14 But on the dashboards and the stuff that's going to be going
15 and be made public, does the data being made available provide the
16 background to understand the trends when it goes public? And if it doesn't,
17 is there a way to provide that background information is there, so that whoever
18 is looking at the data is telling and understanding an accurate reflection or
19 story?

20 MR. MILLER: So, that's, Commissioner, another great
21 question. That's part of what our team is trying to do, is not only present the
22 data in a meaningful way, but it's in a way that the appropriate audience can
23 understand.

24 And so, when those dashboards are made public, we'll have

1 the proper explanation on what these findings mean.

2 I will note that on our internal dashboards that we've been
3 testing out, and they're available to NRC staff, at this point, as we're working
4 through to get the right data available, yes, they provide that kind of
5 perspective. You can focus on a certain period of time, whether it's five years,
6 ten years, 30 years, well, not 30 years, but since the ROP was started 20
7 years ago.

8 And then, we'll have appropriate pointers to other publicly
9 available documents, because all this data is coming from inspection reports,
10 LER, licensee event reports, a bunch of different data that the public has
11 availability for.

12 So, you can drill down in that data and find what you're
13 looking for and then, go to a specific site. For example, you can screen these
14 by site, by region, by a number of different parameters.

15 COMMISSIONER WRIGHT: Right. Thank you so much,
16 Chairman.

17 CHAIRMAN SVINICKI: Thank you, Commissioner Wright.
18 Next, we'll hear from Commissioner Hanson.

19 COMMISSIONER HANSON: Thank you, Madam Chairman.
20 Kevin, I'm going to start with you. You mentioned, I think in some of the
21 discussion on slide 45, about staff, how staff is enhancing our coordination
22 with Agreement States and incorporating strategies to provide clearer
23 disposition of low safety significance issues and inspection programs, et
24 cetera.

1 Could you talk a little bit about how you're doing that and
2 what kind of specific activities you're undertaking with Agreement States?

3 MR. WILLIAMS: Sure. The Agreement States are -- we
4 treat them as co-regulators in the program. And so, we have a very robust
5 relationship with the Agreement States. I think one of the biggest issues is
6 the focus on communication.

7 One of the things that we did early on, and I am going to get
8 to answer your question, but one of the things we did early on is we listened
9 to what they wanted to receive back, how they wanted to be treated as a co-
10 regulator.

11 One of the things that they focused on initially was getting
12 more engaged in rulemaking. So, we engaged the rulemaking staff and we
13 carved out a way to get their information up front, early in the process versus
14 on the back end of the process, so that we would be able to fully appreciate
15 and understand what their considerations are.

16 Now, we've taken that same concept and applied it to the
17 updating of our guidance, whether that's Manual Chapter 2800, changes to
18 our IMPEP program as a whole, we've engaged them in a manner by which
19 we get them on our working group.

20 For example, we have at least two to three Agreement State
21 representatives on our working group and we're incorporating and talking to
22 them about all aspects of the program.

23 We just recently had a meeting with the division directors,
24 all the regional division management, and we included them in that

1 conversation, so we could get their input, especially if there was anything
2 contrary to where we were going, so that we could make informed decisions
3 on our process.

4 So, what we're trying to do there is make sure that we get
5 them in up front, early, what I would call any differing view or -- and I'm not
6 saying that because they have a differing view, but we want to make sure that
7 we engage all of our stakeholders such that we can make informed decisions
8 about our processes.

9 COMMISSIONER HANSON: Thank you for that, I
10 appreciate it. I'm going to stick with you here just for a minute. I think on
11 that same slide, you had mentioned smarter fuel cycle facility inspections and
12 regulation.

13 And of course, one of the things, I think, in some of the fuel
14 cycles that the public is worried about are environmental impacts, particularly
15 with some of the spills that we've seen.

16 So, can you talk to me about how environmental impacts are
17 addressed in both the way we currently inspect those fuel cycle facilities and
18 ways that we might do so in the future?

19 MR. WILLIAMS: That may be a little bit outside of my area,
20 but one of the things that we focus on is, we have a number of engagements
21 with our external stakeholders, we try to get that input up front and early.

22 We have an environmental group themselves that conducts
23 the environmental impact reviews to inform our decisions in terms of what's
24 the impact on the process? And as such, we can be more effective in our

1 communication.

2 COMMISSIONER HANSON: Okay. Thank you. Chris,
3 good to see you in person. I met you virtually a couple of weeks ago, so this
4 is great.

5 (Laughter.)

6 COMMISSIONER HANSON: So, the Nuclear Energy
7 Institute had a report out, I think in the last four or five months now, about the
8 correlation, if you will, between performance and safety. I've talked to them
9 about that, or rather, they've come to talk to me about it.

10 But does the staff have views on that? I mean, you
11 mentioned briefly kind of improved industry performance overall, has the staff
12 kind of taken a hard look at that report and do you have some thoughts about
13 it?

14 MR. MILLER: Yes, Commissioner, thanks for the question.
15 We have taken a look at their report and I will share some views. I mean,
16 they do some good work, looking at the history of the operating reactor
17 program over a long period of time.

18 And so, you may hear a little bit different from the message
19 that I'm telling you about the findings trend from 2015 to 2019 or to 2020,
20 because over the period that they're looking, over 30 years, there's no doubt
21 that there's been significant improvements in safety, both because of
22 programs, but equipment, adding FLEX, I mean, you can reel off a number of
23 things. And the risk numbers that they show validate that.

24 Also, things like scrams. Scrams have gone down

1 significantly. So, accident initiators, potential accident initiators, obviously.
2 The LERs, licensee event reports, have gone down. So, the things that we're
3 monitoring, say, overall, the industry trend is getting an improvement, it's
4 getting safer.

5 We looked at some of that data, actually, on our own, in
6 partnership with the Office of Research, when we were doing the SECY 19-
7 0067 we delivered in June of last year, and looked to see is there
8 improvements in safety? And there were, and in a number of areas we found
9 that to be true.

10 So, we did look at it, we validated what they're saying, but
11 there's also looking at current performance, trying to analyze these findings
12 things, because there's a lot of, as Commissioner Wright mentioned, there's a
13 lot of inputs to that that might be affecting the findings.

14 And so, it's not a one-for-one, because they're looking over
15 30 years, we're looking over four or five years. Just wanted to make that
16 clear.

17 COMMISSIONER HANSON: No, that's right, it's a multi-
18 variable kind of situation and correlation isn't necessarily causation. And
19 there are a bunch of caveats that you can put around this, so I really appreciate
20 that. That's all I have. Thank you, Madam Chairman.

21 CHAIRMAN SVINICKI: All right. Thank you. I was going
22 to start with Kevin, but I actually realized everybody's doing that, so what I'm
23 going to do is start with Mike King.

24 (Laughter.)

1 CHAIRMAN SVINICKI: And that way -- and I'm going to go,
2 I think, reverse, or maybe I'll flip-flop here, just to keep it interesting and keep
3 all the presenters listening to all the questions and not just assuming the order.

4 So, Mike, would you happen to know, off the top of your
5 head, in terms of the peak activity level on inspection to-date, when we talk
6 about this necessary surge in inspection that comes right at the end, is that
7 like a doubling of the most busy you've ever been or a tripling, or is it just like
8 maybe 20 percent more, would you know relative range? I'm trying to get a
9 sense of how much that would stress the system in ways that it hasn't been
10 stressed yet.

11 MR. KING: So, in terms of, if you use the number of ITAAC
12 that are being closed in any particular month as a proxy for level of workload,
13 it could be on the order of three times kind of the maximum workload we've
14 seen in terms of number of closure of ITAAC.

15 However, what kind of offsets some of that is we anticipate
16 that those ITAAC are going to be closed towards the end. And so, we're
17 really kind of taking proactive steps to see what pieces can we look at today,
18 rather than waiting until they say we're about done, to push as much of that
19 workload early on as we can.

20 CHAIRMAN SVINICKI: And you had mentioned that, and
21 also, I think the other thing you highlighted in terms of getting ready for that
22 peak or surge, it's thought we are -- it's kind of going to be a whole of NRC
23 response that we're going to prepare for in advance, in terms of looking at
24 what inspectors might be available or could be deployed to help with that.

1 And I didn't mean to suggest in any way that this is catching us unaware, we

2 --

3 MR. KING: Right.

4 CHAIRMAN SVINICKI: -- didn't know, but we've known and
5 been talking about this for a very long time. It's a little bit like constructing a
6 house or anything else, you've got that punch list at the end and it just -- but I
7 think we've also, years ago, worked to smooth it.

8 You've continued to try to smooth it, that's the efforts you're
9 making now. But it will inevitably be a surge and it sounds --

10 MR. KING: Absolutely.

11 CHAIRMAN SVINICKI: -- kind of like a dramatic
12 proportionality there, so we are getting folks ready to help with that. And,
13 Dan, it looks like --

14 MR. DORMAN: Chairman, if I could, yes, it's not just what
15 inspectors are available, it's making sure we've got inspectors with the right
16 knowledge and skills to apply to the AP1000. So, Region II has cross-trained
17 about 30 of the operating reactor inspectors in the AP1000 technology. So,
18 that's the surge force.

19 And then, to make sure that we're not losing the bubble on
20 the operating fleet in Region II during that period, the regions have been
21 coordinating, along with NRR, anticipating this for several years.

22 The other regions are planning their work as well and are
23 ready to supplement Region II as needed with the operating reactor inspectors
24 to ensure that we keep the baseline complete on the operating reactors

1 throughout the surge.

2 CHAIRMAN SVINICKI: Okay. Thank you. And if Mike
3 isn't following this, Dan, maybe you'll jump in. As busy as I know that the
4 Vogtle Readiness Group and the Vogtle Project Office are with their eyes on
5 the project, and that's appropriate, the NRC has for some years had in
6 development what I call, I think we're still calling the Part 52 lessons learned
7 rulemaking.

8 And so, Mike, being closer to the project -- and the focus
9 needs to be on the project itself, again, I've acknowledged that. But are we
10 making sure to capture things that we feed back into that rulemaking group
11 and process and could you talk a little bit about that?

12 MR. KING: Yes. When we reunified the office, part of what
13 had previously -- all the licensing experience and a lot of the staff involved,
14 some of them split off to go to different parts of the organization and the unified
15 office.

16 And the folks within the Vogtle Project Office have remained
17 engaged with the 50.52 efforts. In fact, we recently had the opportunity to
18 review and provide comments on the draft. So, yes, we are staying engaged
19 with regards to particular insights. And I don't know, Dan, if you want to --

20 MR. DORMAN: No, I think not only to the rulemaking, but
21 also I think Ho touched on it in his presentation earlier, to the licensing
22 activities that go on in the interim as well. So, the lessons learned on
23 reexamining the ITAAC on the AP1000 were applied in the NuScale review,
24 for example.

1 CHAIRMAN SVINICKI: Okay. Thank you both for that.
2 Kevin, I appreciated your earlier responses and you talked about our
3 Agreement State partners and that partnership of looking at them as a co-
4 regulator.

5 But we also undertake routine assessments of the rigor of
6 the various Agreement State programs on those teams doing those reviews,
7 of course, are Agreement State regulators from other states. So, it has an
8 element of being peer-to-peer, but it's also got an NRC structure that binds it.

9 I don't know, Kevin, if you're aware, maybe Dan has some
10 awareness, but we, of course, depending on the health of the Agreement State
11 program, the frequency varies, they're called these IMPEP assessments, and
12 I never can remember, I'm going to make up a plausible list of things to string
13 together for it, I think it's something like Integrated Management and Program
14 Evaluation, something or other, the last P, I can't, I used program already, so
15 I can't use it again.

16 So, I don't know what it is, but we all call them, very
17 affectionately, the IMPEP. Some part of that has gone virtual, I understand,
18 maybe the management team look at the results, something that was
19 generally a field element of IMPEP reviews was accompaniments of looking
20 at -- accompanying state inspectors on inspections.

21 So, can you tell me if we're going to get the scheduled
22 IMPEPs done this year and maybe projecting forward to next year? And
23 then, if we have had to relent on that kind of accompaniment, that seems to
24 me that's probably a good part of these inspections that would need to be

1 resumed at some point, but I'll just let, Kevin, is there anything you can share
2 on that?

3 MR. WILLIAMS: Yes. So, during the COVID public health
4 emergency, we took a very measured approach to IMPEPs. And we decided
5 that we would develop a decision matrix, in terms of whether or not we would
6 conduct an IMPEP.

7 And one of, just as you stated, one of the things that we
8 thought was very critical to this was to conduct the inspector accompaniments.
9 And so, we looked at a couple early on and we said, if we have not conducted
10 the inspector accompaniments, we will postpone that process, and we did.

11 But we have conducted a number of IMPEPs which did have
12 the accompaniments up front. Most recently, Virginia just had their IMPEP,
13 because we had gone out and done the inspector accompaniments.

14 We've also looked, in terms of the health of the program,
15 where they're at in their program perspectives, what can we push out, what
16 do we think that we know, because we're constantly, whether we're doing a
17 periodic meeting to assess their capabilities, that gives us some insights into
18 the program, where their program is in terms of whether they're on, like,
19 heightened oversight monitoring, things of that nature.

20 And that factored all into our decision-making on whether or
21 not, how we would approach these activities, would we need to increase our
22 periodic meetings to them, just to stay abreast on those type of activities.

23 And as such, we've developed our 2020 and remaining out
24 year schedule of IMPEPs. And it will be informed by whether or not we have

1 travel restrictions, if things can be -- what can be done remotely.

2 We did the Wyoming IMPEP remotely. Because it was a
3 very small subset of activities, we conducted the Vermont periodic remotely.
4 And because we believe it does give us a good indication of what the program
5 is, is going on.

6 And we were able to do the same type of activities within the
7 same time frame. Early on, we did Georgia's IMPEP remotely as well,
8 because the inspector accompaniments were done. And it's been a good
9 exchange of information.

10 We've done, I think at least two MRBs remotely, so that the
11 team was able to come together and provide an overview of the assessment.
12 The MRB was able to ask the appropriate questions and we could conclude
13 that they were adequate and compatible within NRC regulations.

14 CHAIRMAN SVINICKI: Great, thank you for that. And I'll
15 just turn to Chris. Chris, you today got the perhaps unwelcome task of kind
16 of being the staff face and representative on your slide 51, which is the decline
17 in NRC findings over a certain slice of years. And that's been explored by
18 some of my colleagues here as well.

19 And I kind of look at this each time, thinking what is the best
20 both way to think about this and to articulate it? Because I think that it kind
21 of lends itself to a lot of different ways of looking at it.

22 And as many of us do, I try to project myself into the mind
23 maybe of someone who lives near a U.S. nuclear power plant, and on the one
24 hand you say to yourself, well, how can we be sure that the program is

1 effective and the sites are safe when we look at something -- I also looked a
2 little bit at the years that we've chosen to represent on this slide 51 and I know
3 that post-Fukushima, there were areas that received a rigor of looking, I think,
4 that was more intense than maybe they had and there's a lot of reasons why
5 that happened.

6 So, we might be starting with some pretty hot, like the first
7 year in the chart is maybe it was an elevated year, I don't know that for sure,
8 but that's something that comes to mind. But it's this trickiness of kind of
9 governance over processes like this.

10 The classic example is you don't want to tell a law
11 enforcement officer that your job will be, your effectiveness will be judged, you
12 have to issue this many citations to people in our town every week. And
13 everyone knows that that has a perverse incentive on what happens there.

14 At the same time, it's a little bit of proving unknown
15 unknowns, like, what are the unfound inspection matters that are in here?

16 So, is there any -- I'll close with this really simple question.
17 Has the staff found any really great way to articulate this again just to the
18 public? Maggie was talking about public assurances that we offer, is there
19 some bottom line way that is the staff's kind of best foot forward on a chart like
20 this?

21 MR. MILLER: Good question, Chairman, thank you so
22 much. So, and I'll use one of your examples. But, yes, I think the bottom
23 line message is, no matter how many findings in a particular year, there's a
24 number of reasons why they might have gone down.

1 We still have almost 3,000 hours of direct inspection that we
2 do at each site, each of the 59 sites, we're there, our presence is there, doing
3 the kinds of things that Maggie mentioned. They might all not, the things that
4 they find might not all end up in findings, they could be minor violations, which
5 don't get in a report at all, they don't track them.

6 They could be just looks to say, hey, you got away on this
7 one because you just barely met the time requirements, you were lucky, but I
8 would look at this. And those type of conversations happen every day
9 because of our presence onsite. So, I think that's the main message.

10 I would liken your example, instead of us focusing on the
11 number of findings, it's more like the red light example. If you have somebody
12 out there looking, if you have a red light camera at an intersection, you're going
13 to find that people slow down and the data show that.

14 And we find that licensees, when they know the inspectors
15 are out there, they're going to take a closer look at how they do things.

16 CHAIRMAN SVINICKI: Yes, I think there's also an increase
17 in people being rear-ended at those lights, but that's separate.

18 (Laughter.)

19 CHAIRMAN SVINICKI: People slam on the brake, no, I think
20 there's data, I can't cite to it right now, but I've heard that it's a little bit of a
21 mixed bag on the red light cameras because people might really not have
22 adequate stopping time and they would ordinarily have proceeded safely
23 through on the yellow. But, anyway, Dan wanted --

24 MR. DORMAN: Just very quickly --

1 CHAIRMAN SVINICKI: -- to say something, I'm over --

2 MR. DORMAN: -- Chairman, the performance indicators in
3 the ROP are independent of what our inspectors are doing. So, they provide
4 also an indication of what's happening. And so, at the beginning of this period
5 that we're looking at, in 2015, we had a plant in Column 4 and then, late in
6 that year, we added a second plant to Column 4.

7 And so, that's a contributor to the trend, but it doesn't define
8 the trend. And I think Commissioner Wright mentioned, there's a number of
9 inputs and none of them individually correlates to the trend.

10 But to your question of the unknown unknown, one of the
11 reports that is provided to senior management on a monthly basis is the status
12 of each plant in terms of the columns and the action matrix, but also what
13 plants are close to thresholds on the performance indicators.

14 And I follow that closely, because I think it helps me with the
15 unknown unknown and I don't see as many plants close to action matrix
16 thresholds as I've seen in the past in this period that we're looking at. So,
17 that combined with, we've had several greater than green findings this year.

18 So, I'm confident our inspectors are out there finding the
19 things that are important. They are very adept at risk-informing their samples
20 and they're finding the things that are important, so that's my confidence.

21 CHAIRMAN SVINICKI: Well, and again, I'm way over my
22 time, but just to reveal sometimes maybe how simplistically I look at things,
23 which maybe isn't a thing I should reveal publicly, but I look at it and say, it
24 also isn't the objective for plants to continue to operate with a certain number

1 of deficiencies so that we can have inspection findings.

2 I mean, if it never went down, then you would ask yourself,
3 well, how effective is our program, because like the same kinds of oversights
4 and mistakes tend to be found every year? So, I don't know that I want to be
5 an advocate for having a lot of NRC findings.

6 In any event, I'll close with that. And my apologies to my
7 colleague, Commissioner Baran, because I went way over, sorry about that.

8 COMMISSIONER BARAN: No problem at all. It's a great
9 conversation to have and it's one I want to ask a little bit more about. I think
10 it is important for us too, as an agency, just get our arms around this trend and
11 understand what's going on here.

12 And I know that's going to be multiple variables and it's
13 difficult to figure it out, but I think really understanding what might be
14 contributing to it is important. And, Chris, I appreciate you taking a fair bit of
15 time in your presentation to talk about this in some detail, because I think it is
16 something we need to be aware of.

17 The Chairman was talking a little bit about the particular
18 graphs that you used and which years you covered. I was looking at the data,
19 really, from the beginning of ROP. And for that first 15 years, I wouldn't say
20 it's flat, but it's basically averaging about 850 findings for the fleet.

21 And then, we see from '15 to 2019, that really drops
22 precipitously down to 440. So, as you mentioned, that's about a 50 percent
23 drop per site on average, just raw numbers, 46 percent drop in that four years.
24 And that is, then, the lowest number of findings from the 20-year history of

1 ROP.

2 Last August, the staff sent the Commission an analysis of
3 the possible drivers of this trend, you talked a little bit about that. That
4 analysis is publicly available.

5 Has the staff done any additional formal analysis of the
6 inspection finding trend during the past year or is that still kind of the latest
7 best information on the staff's review?

8 MR. MILLER: So, thank you, Commissioner. And we do,
9 we look at this a lot, we ask ourselves that question a lot.

10 One of the things that we've done is to shine a light on it.
11 We have now a trend that anybody can go to, click on, and say, how are those
12 doing?, how are the regions doing?, is there a particular outlier anywhere?,
13 and are the numbers going down?

14 So, we do look at it, we do have that discussion. We
15 haven't commissioned a formal team to go and get more data.

16 Early on in this, and as described in that paper, we had a
17 staff survey to see how -- what might have caused some of these, what were
18 some of the reasons? And that's detailed in that Commissioner Assistants
19 Note, as you mentioned.

20 So, no, we haven't, other than looking at the data and trying
21 to make improvements where we think is appropriate. If you remember,
22 some of this we believe was kicked off in a Government Accountability Office
23 review that said, hey, you've got quite a discrepancy between regions and
24 your findings and the like.

1 So, we've continued to add examples and clarity on how to
2 determine minor versus more than minor findings. We added that, again, this
3 year, January of this year, we added additional guidance in Manual Chapter
4 0612 Appendix Echo.

5 So, we are doing some things, but I think we need to give
6 that a little bit of runtime. That was January, when we added that improved
7 guidance and we need to give it maybe a year's runtime and see if that has
8 any effect on things, because there were a lot of questions.

9 But I think one of the things we did is added a lot of
10 oversight, a lot of eyes looking at this. And that in itself could be a driver.
11 The more that people are looking at it, you're shining a light on it, okay, did
12 you really make the right call there on minor versus more than minor or not?

13 And we are looking at and working with the Mission
14 Analytics Portal, are there other ways of describing the benefits of
15 inspections? It's not just findings, as the Chairman very aptly identified,
16 there's other things, there's other benefits, maybe there's other ways to show
17 it besides just findings.

18 So, we're looking at that as well. But no formal study, to
19 answer your question.

20 COMMISSIONER BARAN: Okay. Well, kind of in this
21 discussion and your presentation, you mentioned a few potential drivers for
22 the decline, and I thought it made sense to maybe explore those a little bit
23 more.

24 One, as you mentioned, were the cross-regional panels to

1 gain consistency across regions on new or particularly challenging findings.
2 What's the staff's thinking about how those panels focused on consistency
3 would lead to a lower number of inspection findings in all four years, every
4 year?

5 MR. MILLER: That's a great question. We kick that around
6 in our inspection group quite a bit, in our branch and division, and across the
7 offices, really, because it applies to all of them.

8 So, the cross-functional panels, I think the best example I
9 can give is in the engineering space. If you recall the environmental
10 qualification inspections that we did, we went out, before we had cross-
11 regional panels, we had a number of unresolved items, we had a number of
12 issues that were being looked at differently across all the regions.

13 After we implemented the cross-regional panels, we got the
14 same information across all four regions. They were looking at it, they had
15 the right guidance, the inspectors, the branch chiefs, all the decision-makers
16 were looking at that, and they were making the decisions in a better informed
17 manner.

18 And so, as a result, those unresolved items that could have
19 been findings, some of them went away, some of them were resolved with
20 violations or whatever, but the understanding was better.

21 When we went into the follow-on inspection that didn't look
22 at environmental qualification, but power operated valves, we had those
23 panels right up front. And so, all that data was available across the regions,
24 everybody was looking at it the same.

1 We've done five or six of those inspections so far and we
2 got very good results. People are seeing those the same way, and so, you
3 don't get as many, say, potential findings that are called unresolved or findings
4 that were spent a lot of time on that really aren't findings.

5 COMMISSIONER BARAN: And similar, I guess, it starts to
6 -- one of the other potential drivers you mentioned was increased
7 management oversight of the findings, determination process. I'd be -- it
8 sounds like maybe that might be part of this issue with the cross-regional
9 panels. But how do you see the increased management attention on it
10 affecting the number of findings?

11 MR. MILLER: So --

12 COMMISSIONER BARAN: Tell me a little bit more about
13 that as a driver --

14 MR. MILLER: Yes.

15 COMMISSIONER BARAN: -- for this trend.

16 MR. MILLER: So, when you shine a light on it, you ask a few
17 more questions, so inspectors out in the field comes up with something,
18 they're going to be saying, okay, is this minor or more than minor?

19 They're going to look in 0612 Appendix Echo and look at
20 some of the examples and they're going to run it by their branch chief. And
21 then, if it's -- sometimes the licensees will push back and then, there will be
22 another look, another review that's done.

23 And so, just that amount of work, it's a little extra work, and
24 then an inspector has to decide, is this one really there? Am I on the fence

1 with this one or is it worth the effort?

2 We've heard from some inspectors that it may not be worth
3 the effort because it's of low safety significance, just not to continue that. But
4 on the other hand, we've heard from the majority of the inspectors that if it's a
5 finding and if it is of risk significance to pass the minor/more than minor, they're
6 going to process it.

7 So, we don't have a concern that they're not going to
8 process it, but you can imagine that they're thinking about that and that it's an
9 extra level of effort to get to that finding.

10 COMMISSIONER BARAN: Did you want to jump in, Dan?

11 MR. DORMAN: I would just offer, it also, it aligns on the
12 standards and expectations.

13 So, as I'm listening to Chris, I'm actually flashing back about
14 17 years, in the post-9/11 environment, where we were inspecting, doing kind
15 of initial inspections of some of the early security responses to the 9/11
16 attacks. And we had more than an order of magnitude difference between
17 regions on the number of findings on those inspections.

18 And so, really, bringing management of all of the
19 organizations together to align around standards and expectations of what
20 we're looking for in these inspection programs and what really rises to the level
21 of a finding, I think that provides a level of consistency that kind of normalizes.

22 And I know all four of the regions have been coming down
23 in this trend. So, there's not a discrepancy between regions there. But I
24 think as we continue to explore the minor/more than minor threshold, that

1 alignment across the organization on standards and expectations is a
2 contributor, I'll say.

3 COMMISSIONER BARAN: Chris, you mentioned that back
4 in 2019, there was a survey of inspectors to get their perspectives on this
5 declining findings trend. And according to the August 2019 memo, some
6 inspectors pointed to increased industry pushback on potential inspection
7 findings as a contributing factor, you actually just mentioned that in the
8 discussion.

9 Has the staff looked at whether industry pushback on
10 findings is contributing to fewer inspection findings? And if so, how that is?

11 MR. MILLER: So, thank you for the question. The staff has
12 looked at the data that show that there is an increased pushback. So, it's not
13 just a thought or an assumption by --

14 COMMISSIONER BARAN: In terms of --

15 MR. MILLER: -- these inspectors.

16 COMMISSIONER BARAN: -- like, formal challenges to
17 potential findings?

18 MR. MILLER: Yes, they're -- those number of challenges are
19 going up. It's a little bit harder to quantify whether those are driving the
20 findings down, but I would go back to our previous discussion, when you have
21 more management oversight, more licensee pushback, you're going to make
22 darn sure that when you go through 0612 guidance that you're right.

23 And so, it's not a bad thing to make sure that we're right in
24 our calls, necessarily, but it's going to take a little bit of extra effort and we're

1 going to have that extra site overview, just because you've got that pushback.

2 We need to make sure that -- and we typically try to do that,
3 Commissioner, we'll ask, usually before an inspector exits, they're going to
4 ask licensee management whether or not they agree or they're going to find
5 out whether there's an agreement or not.

6 And so, we're going to do our homework and make sure,
7 double-down and make sure that we're sure of our facts before we carry it
8 forward.

9 COMMISSIONER BARAN: Well, thanks, I appreciate this
10 discussion. I want to, I'm a little bit over time, but I wanted to quickly ask on
11 another issue, Chris, which is, the ROP self-assessment program changes for
12 2020.

13 And under the new approach, the ROP changes that require
14 Commission approval, only those changes would undergo effectiveness
15 reviews, which I could see could potentially leave out some pretty significant
16 changes to the ROP, if we're only doing effectiveness reviews on ones that
17 would be Commission-approved.

18 What was the thinking behind limiting effectiveness reviews
19 to only Commission-approved ROP changes?

20 MR. MILLER: So, Commissioner, thank you for the
21 question. We have looked over the last few years on how to -- we spent quite
22 a lot of hours on the assessment process itself.

23 It is a very -- we feel very confident that it's doing a good job
24 of assessing the ROP, but we're trying to see, is there ways that we can

1 reduce that? And so, this would be a way to perhaps reduce the footprint of
2 that assessment process.

3 That was the thinking, but we don't -- we're not locked into
4 that. We could look at those significant ones, but we also could look at others
5 as we have resources to do it. So, it's really a resource management, looking
6 at the most risk-significant things.

7 And if there's time for one that we don't deem as, not as risk-
8 significant, to look at it, we will, especially if we're getting feedback from our
9 stakeholders, like the region saying, hey, you really need to look at this area,
10 because we're tripping over this, or something.

11 COMMISSIONER BARAN: All right. So, you have some
12 flexibility there.

13 One ROP change that was approved by the Commission
14 back in 2015 was to increase the number of white findings it takes to enter
15 Column 3 from two white inputs at the same cornerstone to three white inputs
16 in the same cornerstone.

17 One of the main arguments in support of the staff's
18 recommendation at that time to make this change was the belief that the
19 change would result in fewer licensee challenges to potential white findings.

20 Has that been the case? And if not, has the staff
21 considered revisiting that change?

22 MR. MILLER: That's a great question, Commissioner. So,
23 we still see quite a bit of pushback on white findings, to answer that part of
24 your question.

1 We have not done our assessment of the switch from two to
2 three, and we plan on doing that this year. In fact --

3 COMMISSIONER BARAN: Okay.

4 MR. MILLER: -- we're putting a team together to do that right
5 now, even as we speak. So, we will look at that. And we'll look and see, did
6 that accomplish the purpose that we put it in there for, the two to three?

7 But to answer the first part of your question again, I think
8 we're still seeing an increase, or not an increase, but certainly a strong industry
9 desire not to get white findings at any particular site, that there's a strong
10 emphasis on white findings.

11 COMMISSIONER BARAN: Well, thanks, I look forward to
12 that analysis. Thank you for your indulgence.

13 CHAIRMAN SVINICKI: Thank you all very much for the
14 presentations today and my colleagues for their thoughtful questions. And
15 with that, if there's nothing further, we are adjourned.

16 (Whereupon, the above-entitled matter went off the record
17 at 11:45 a.m.)