UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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34TH REGULATORY INFORMATION CONFERENCE (RIC)

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EDO PLENARY: PREPARING FOR TOMORROW AS A MODERN RISK-INFORMED REGULATOR

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WEDNESDAY,

MARCH 9, 2022

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The Plenary Session met via Video-Teleconference, at 8:00 a.m. EST, Ray Furstenau, Director, Office of Nuclear Regulatory Research, presiding.

PRESENT:

RAY FURSTENAU, Director, Office of Nuclear Regulatory Research, Nuclear Regulatory Commission

DAN DORMAN, Executive Director for Operations, Nuclear Regulatory Commission

P R O C E E D I N G S

8:00 a.m.

MR. FURSTENAU: Good morning, good afternoon, and good evening and welcome to Day 2 of our 2020 virtual regulatory information conference.

Yesterday, I know we had an excellent lineup of plenary and technical sessions and we expect the same today with our morning plenaries and afternoon technical sessions.

Today we'll be starting the plenary sessions with remarks from our Executive Director for Operations, Dan Dorman.

Dan's remarks will be followed by a Q&A session so I encourage you to type in your questions and we'll try to answer as many as we can. Dan was appointed the Executive Director for Operations of the Nuclear Regulatory Commission in October of 2021.

This is the highest-ranking career position in the Agency with responsibilities overseeing the Agency's operational and administrative functions and serving as the Chief Operating Officer.

He previously served as both the Deputy Executive Director for Reactor and Preparedness

Programs and Acting Deputy Executive Director for Materials Waste, Research, State, Tribal Compliance Administration and Human Capital.

I don't know if there's anything else left after you've done that, Dan. Mr. Dorman joined the NRC in 1991 as a project engineer in the Office of Nuclear Reactor Regulation.

He has served in senior management positions in the Offices of Nuclear Regulatory Research, Nuclear Security and Incident Response, Nuclear Material Safety and Safeguards, and Nuclear Reactor Regulation.

From 2014 to 2017, Mr. Dorman served as Regional Administrator in Region 1. Prior to joining the NRC, Mr. Dorman served as a submarine officer in the U.S. Navy's Nuclear Power Program with a subspecialty in joint intelligence operations.

He received a bachelor's degree in naval architecture and marine engineering from the Web Institute of Naval Architecture. He received the NRC's meritorious service award in 1996 and the presidential rank meritorious executive award in 2008.

With that I'll turn it over to you Dan,

thank you.

MR. DORMAN: Thank you so much, Ray, for that introduction and good morning, everyone. On behalf of the U.S. Nuclear Regulatory Commission, it's my pleasure to add my welcome to the second day of this year's RIC. This is my first RIC serving as Executive Director for operations.

This year, much like last year, we decided to move the RIC to an all-virtual format. Last year proved to be one of our most successful conferences ever, with approximately 3400 people participating.

This year we expect to have a similar number of people participating and listening in on the various panels and technical sessions. That said, next year I hope to be able to attend the RIC and to meet with many of you in person.

Every year we look forward to the opportunity to host this and to share information at this event. I thank you all for being here and I'm excited about the healthy dialog that I observed yesterday and that's going to occur today and tomorrow at this year's conference.

Most importantly, I thank you for your

ongoing commitment to safety and security in the use of radioactive materials and technology. With that in mind, I feel it necessary to sadly acknowledge the tragic events in Ukraine.

All of our thoughts are with the people of Ukraine who so abruptly have seen their lives uprooted and endangered.

The Staff of the State Nuclear Regulatory Inspectorate of Ukraine are carrying out their essential duties in the face of extraordinary challenges unlike anything we've seen in history.

The RIC normally provides an opportunity for us to meet with our international counterpart regulators and to share best practices, discuss the challenges we are facing, and identify potential solutions.

This year we do so out of necessity but with a heavy heart.

Finally, I want to thank the individuals in the Office of Nuclear Reactor Regulation and Nuclear Regulatory Research, and the many volunteers whose work and planning has set the stage for another successful conference.

This morning, I want to spend some time

looking at how we are preparing for tomorrow as a modern risk-informed regulator. Over the last two years, the NRC has developed and implemented a number of tools and resources that enable us to support our Agency's transformation journey.

We're using the Be Risk-Smart framework and are accepting well managed risk in our decision-making. In addition, we're using technology to work smarter including using data analytics to highlight areas for regulatory attention and improvement.

We're innovating our processes to make timely decisions that take into account different viewpoints and fully explored options.

We have worked and continue to work very deliberately to have a skilled, adaptable, and engaged workforce ready for the work that is before us today and out into the future.

If I could have Slide 2, please?

The principles of good regulation, independent, clarity, openness, reliability and efficiency, and our NRC values and integrity, service, openness, commitment, cooperation, excellence, and respect continue to be the bedrock

foundation of our regulatory posture and decision-making.

Building on this foundation, one significant accomplishment from last year is the 2021 saw us further ingrain the transformation mindset into our organizational DNA.

We continue to strive towards ensuring that the decisions we make are filtered through the rubric of our transformation efforts, which drives us towards making high-quality regulatory decisions with the level of effort appropriate to adequately manage risk.

With that in mind, in 2021, despite the challenges posed by the pandemic, we continued to successfully achieve our mission to license and regulate the nation's civilian use of radioactive materials to provide reasonable assurance of adequacy protection of public health and safety to promote the common defense and security and to protect the environment.

In the last year, we have continued to execute a risk-informed oversight approach to ensure that we are protecting the health and safety of our inspectors, site personnel, and local communities.

In-person inspections are the preferred approach for our inspections and we increase those relative to the first year of the pandemic.

However, we continued to use a flexible hybrid approach allowing us to balance local health conditions and risk profiles to determine the appropriate onsite presence of our inspectors.

These efforts allowed the NRC to successfully continue its independent oversight of NRC license facilities and activities.

Similarly, in 2021, we revised our force-on-force inspection procedure for limited scope tactical drills to include another option that was broader in scope than the tactical drills we performed in 2020.

This new option balanced the risk of COVID-19 exposure for NRC and licensee Staff with the need to conduct broad-scope security inspections. Depending on licensee site conditions, the NRC Staff has successfully inspected licensee performance and tactical drills for the modified force-on-force exercises throughout 2021.

We innovated our incident response program to align our response structure with those of

other federal response organizations.

We use technology to incorporate regional and headquarters responders in an integrated response approach with includes virtual and in-person participants and expanded the program to a full agency response.

In August 2021, we successfully employed this approach in real time at Waterford Nuclear Power-Plant in response to Hurricane Ida.

We continue to use innovative processes such as utilizing the Vogtle Readiness Group, or VRG, to coordinate between NRC offices to oversee licensee activities as it prepares to complete construction and transition to operation for Vogtle Units 3 and 4.

The VRG ensures that we keep open lines of communication within the NRC, with the licensee, and with the public, and that technical and policy issues are promptly resolved.

This year, we finalized plans for the transition to operations of Vogtle 3 and 4, and we met key milestones in our preparations to support potential finding that all inspection test analyses are performed and acceptance criteria are met.

And we have effectively responded to

several time-critical and high-priority licensing actions.

We're also modernizing our regulatory infrastructure for advanced reactor licensing through issuance of preliminary proposed rule language for our Part 53 advanced reactors rulemaking.

In addition, we submitted the draft advanced reactors generic and environmental impact statement and the associated draft proposed rule to the Commission for their consideration.

We also submitted a paper to the Commission providing the draft final rule for emergency preparedness requirements for small modular reactors and other new technologies.

We issued several guidance documents on technical issues related to advanced reactors. While we build out a risk-informed, technology-neutral regulatory infrastructure for advanced reactors, we continue to actively review applications for these new technologies in a timely manner.

We are ensuring these applications continue to meet our safety and security requirements. For example, this year we had broad stakeholder engagement on advanced reactor activities

including pre-application engagement with more than 13 prospective applicants.

We held over 85 public meetings on new and advanced reactor activities and held extensive discussions with the Department of Energy, the Department of State, the Department of Commerce and other federal entities.

We issued a letter accepting for review and docketing the Kairos Hermes construction permit application for a non-power test reactor to be built in Oak Ridge, Tennessee.

While we denied without prejudice Oklo Power's application to build and operate the company's Aurora Compact Fast Reactor in Idaho, Oklo has the opportunity to submit a complete application in the future.

Regarding decommissioning, since the last regulatory information conference, the NRC terminated the license for the Humboldt Bay Power Reactor and the site has been released for unrestricted use of the 11th power reactor to undergo safe and effective decommissioning under NRC licensing and oversight.

Additionally, since this time last year,

one additional reactor has entered active decommissioning for a total of 25 sites currently in decommissioning status of which 18 are actively working towards final license termination.

Conversely, there have been some recent changes and plans for power reactors that had previously announced decisions to decommission.

Specifically as a result of the recent passage of energy legislation in Illinois, Exelon Generation announced that it decided to continue operations at the Byron and Dresden Stations in Illinois.

We innovated our processes to ensure that we're well positioned to continue reviewing emerging medical technologies including streamlining guidance development and collaborating with agreement states.

And we continue to support the university nuclear leadership program which provides research and developed and educational grants to institutes of higher education and encourages researchers at U.S. institutions to bring innovative ideas to the NRC and the nuclear industry.

In 2021 under the research and development funding announcement, we awarded more than $5.4 million for research and development grants

to 10 academic institutions in 8 states.

Recently, one of the recipients of those research grants, Oregon State University, presented its research related to nuclear cybersecurity to the NRC Staff.

This research directly addresses the objectives of the NRC to have a risk-informed understanding of cyber vulnerabilities associated with nuclear plant instrumentation and control systems. Awards for our educational grants are currently underway and will be announced in April. Internationally, we continue to engage in bilateral nuclear safety and security cooperation programs and assistance activities with our regulatory counterparts around the world.

We actively participate and contribute technical and regulatory expertise to multilateral organizations such as the International Atomic Energy Agency and the Nuclear Energy Agency.

And we have a robust international cooperative regulatory research program.

Last summer, we published our international strategy for 2021 through 2025, which details our efforts to foster and maintain

collaboration with the international counterparts and multi-lateral organizations.

We also worked closely with the Canadian Nuclear Safety Commission to issue two joint technical reports under a first-of-a-kind memorandum of cooperation on small modular reactors and advanced reactor technologies.

And in a few weeks, we will be participating in the first review conference of the parties of the amended convention on the physical protection of nuclear material.

Finally, over the last year we have been involved in an important effort to review how environmental justice is addressed in the NRC's programs, policies, and activities.

In that time, we conducted extensive outreach including reaching out directly to environmental justice communities and tribal nations to inform them about this effort and to solicit feedback.

In addition, we have held several public meetings in support of this effort, including a listening session to hear perspectives from environmental justice community leaders and

practitioners and how the NRC has addressed and might enhance environmental justice in its programs and activities.

Further, we met with individuals and groups across the country representing a variety of perspectives and benchmarked the practices of other federal and state agencies.

We have also leveraged knowledge, ideas and experience from across the Agency by conducting interviews with Staff experts. In the next few weeks, NRC Staff will be submitting a paper to the Commission providing an analysis of our detailed review.

This is only a snapshot of the amazing work our Staff has accomplished over the last year and many of these activities will continue to be focal points of our efforts going forward.

Slide 3, please. As we focus on preparing for the future as a modern risk-informed regulator, we will continue to achieve mission excellence in a diverse, inclusive, and innovative environment with a highly skilled, adaptable, and engaged workforce.

These ideals, diversity, inclusion,

innovation, are embedded in our strategic plan for 2022 through 2026 and are at the forefront of my mind as I think about everything that we hope to achieve in the next few years.

The strategic plan is nearing completion and I want to thank those members of the NRC Staff as well as external stakeholders who contributed to its development.

This latest strategic plan continues to emphasize our focus and commitment to the NRC's mission and strategic goals of safety and security.

While it continues to highlight our principles of good regulation and our NRC values, it incorporates many of the lessons we have learned during our transformation efforts and reaffirms our commitment to sustaining the progress we have made over the last few years.

Slide 4, please. One of our strategic goals is to inspire strategic confidence in the NRC by engaging stakeholders in NRC activities in an effective and transparent manner while using high-quality data and information in the NRC decision-making process.

Going forward, we want to continue to

develop our data governance structure to help bring awareness of the importance of data in our decision-making process and help us make risk-informed decisions.

One example of how we are achieving success in this area is through growth in our mission analytics portal program, or MAPP.

In addition to the continual improvement of our MAPP data analytics and dashboards that support decision-making, last year we also launched the next phase of MAPP called MAPP-X, which now allows licensees to submit both web-based relief requests and event notification worksheet forms electronically. This electronic form is intended to simplify and further digitize transactions and data. The current deployment is focused on event reporting by Part 50 licensees, however, Staff intends to expand the capability to other licensee types and is actively looking at other use cases that would support modernized business processes.

Another important goal in our strategic plan is that we continue to foster a healthy organization. We want to attract, develop, and maintain a high-performing, diverse, engaged, and

flexible workforce with the skills needed to carry out NRC's mission now and in the future.

Also, we want to foster an organizational culture in which the workforce is receptive to change and makes high-quality and timely decisions.

To accomplish this we will need to make sure that our workforce has the tools to carry out the Agency's mission by leveraging modern technology, innovation, and knowledge management to support data-driven decisions in an evolving regulatory landscape.

Over the last few years, we have implemented a strategic workforce planning process and are developing competency models to guarantee that we have a skilled and knowledgeable workforce ready to fulfil our mission in the future.

We're focused on providing our Staff with the necessary knowledge management tools and policies so that critical knowledge is being transferred among our senior, mid-career, and entry-level employees.

And to us at some of the attrition that we are seeing with some of our retirement-eligible staff, we have instituted increased hiring including entry-level hiring through our nuclear regulator apprenticeship program.

This is a full-time two-year training program designed to develop well rounded regulators by focusing on skilled development in multiple program areas across the Agency.

While we focus on enhancing our workforce, we will do so in a work environment free from discrimination and harassment and intimidation and will continue to promote an open, inclusive, and collaborative work environment that supports all employees.

Lastly, our strategic plan's primary goal is to ensure the safe and secure use of radioactive materials.

Going forward, we are committed to enabling nuclear innovation in the existing fleet, as well as preparing for the use of new technologies through regulatory engagement and research cooperation.

For operating reactors, we are supporting nuclear innovations in the areas of wireless technologies. Specifically, we are engaged in several research efforts to enable the safe and secure use of advanced wireless communications.

For advanced reactors, a key element of

our research readiness strategy is the development of codes and analytic tools to support confirmatory analyses that may be used in licensing activities.

Our ability to prepare the regulatory framework for advanced reactors to execute timely and cost-effective reviews for advanced and new reactors and provide oversight of the Vogtle Unit 3 and 4 construction project continues to be among the Agency's top priorities.

This year we will continue our activities to support the safe licensing of advanced reactors including developing the Part 53 proposed rule, completing review milestones for the Kairos Hermes construction permit application, initiating reviews of additional anticipated applications, completing pre-application topical reports and white papers for several new and advanced reactor vendors, developing regulatory guidance for advanced nuclear technology applications and executing on a timely review to ensure that all inspections test analyses and acceptance criteria for Vogtle are met.

We have made significant progress to improve the clarity and reliability of the digital instrumentation and control regulatory

infrastructure to enable the safe extended use of digital technologies in new reactor designs and operating plants.

The improvements to NRC guidance are already leading to the expanded safe use of digital instrumentation and controls.

In the upcoming year, we expect to receive two licensing amendment requests involving major digital upgrades to INC protection systems, specifically license amendment requests for Turkey Point Nuclear Generation Station in Florida and the Limerick Generating Station in Pennsylvania.

Additionally, other licensees have indicated interest in large-scale digital modernization to support viability of continued safe and reliable operation for extended periods of operation.

While some modernization activities continue, the Staff is transitioning from regulatory infrastructure modernization to using the improved infrastructure to support the consistent regulation of digital upgrade and modernization requests by licensees and Applicants.

We're also preparing to review the

industry's planned development of accident tolerance, higher burnup, and increased enrichment fuel designs.

In the past year, we have completed a significant number of activities to provide NRC reviewers with interpretations of over 10 years of research on high burnup fuel safety.

Additionally, the Staff issued a revision to the accident-tolerant fuels project plan to better align with industry's shifted focus towards higher burnup and increase enrichment fuel concepts.

This year, the Staff will continue to prepare our infrastructure to support the efficient licensing of accident-tolerant fuels through a structured evaluation to identify any changes in regulation or guidance that may be beneficial.

We will develop a licensing pathway to provide clarity on the steps required for licensing.

In addition to reviewing the several anticipated licensing submittals related to these technologies over the next year, the Staff will continue to engage in stakeholders in various forms to maintain transparency and clearly communicate regulatory expectations.

In the next year, the Staff also expects

to review nine topical reports on accident-tolerant fuels, higher burnup, and increased enrichment technology, and expects to review four licensing actions associated with fabrication and transportation of fuel with increased enrichment.

The Commission recently made decisions regarding how we undertake environmental reviews for subsequent license renewals.

The Commission directed the Staff to reassess how we conduct our subsequent licensee renewal environmental reviews in accordance with the National Environmental Policy Act.

We are working diligently to implement the Commission's direction and chart a path forward for these environmental reviews. As the Commission noted, there is ample time to evaluate the environmental impacts before any plan to enter the subsequent license renewal period.

We will continue engaging with current and potential subsequent renewal applicants as we address the environmental review issue.

The evaluation of environmental reviews is a separate review from the evaluation of safety for subsequent license renewal and we are committed

to the safe operation of nuclear power-plants throughout their lifecycle.

Decommissioning remains a growing part of our workload as a result of the increasing number of power reactors transferring to active or accelerated decommissioning immediately upon closure.

As we continue to adapt and prepare for additional reactors to transition to decommissioning status, we are enhancing and risk-informing our processes and optimizing our approach to meet this increase in our licensing and oversight activities.

We have worked with federal partners to update guidance on radiological surveys to demonstrate compliance with release criteria and we are currently working on guidance in two key areas, subsurface investigations and discrete radioactive particles.

Another area of focus is the licensing and oversight of commercial spent nuclear fuel storage facilities in the U.S. Today the NRC oversees 80 licensed independent spent fuel storage installations with more than 3300 dry storage casks located across 35 states in the United States.

The NRC recently issued a license for the

interim storage partners to construct and operate a storage facility to consolidate spent nuclear fuel from around the country in Andrews, Texas.

The NRC is currently reviewing another application from Holtec International to construct and operate another consolidated interim storage facility located in Southeastern New Mexico.

We plan to make a licensing decision on that application this year. Slide 5, please?

These are only a few the priorities we are focused on going forward. Our strategic plan provides the blueprint for the Agency to plan, implement, and monitor the work needed to successfully achieve our mission.

In closing, I'm reminded of a quote from Peter Drucker. He said a time of turbulence is a dangerous time but its greatest danger is the temptation to deny reality.

As I look back on all we have accomplished over the last few years under incredibly challenging circumstances, I'm proud to say that we have not denied reality.

We have not faltered in pursuit of accomplishing our mission, we have transformed how we

work and we know we will have to continue to adapt and learn to sustain our progress so that we are prepared to face tomorrow as a modern risk-informed regulator.

Currently, we are seeking external stakeholder feedback on our Agency's transformation. This QR code on this slide will take you to the survey, I encourage you to take this survey and share your thoughts with us.

I look forward to having the opportunity to engage with you as we work together to ensure that the nuclear industry continues to operate in a safe and secure manner.

I thank you for your attention this morning and I look forward to your questions.

MR. FURSTENAU: Thank you, Dan. Next we'll go to the question and answer period.

Please submit your questions on the links provided on the Access to this session. The first question is regarding workforce, our workforce was talked about a lot in your remarks and yesterday as well.

With the losing of staff, I think everybody is going through the retirement phase and

losing Staff to normal attrition as well as retirement, and then your goals of high full-time equipment utilization this year, how do you propose to do that?

How do you propose to retain folks we have and attract new folks to the NRC?

MR. DORMAN: Great question, Ray, and I know the Commissioners touched on this yesterday. Since 2014, the NRC staffing has reduced by more than 20 percent. As we went through that reduction, which was the fastest rate of reduction in staffing levels in the history of the Agency, we did so by attrition. It was not necessary, ultimately, for us to engage in voluntary measures to get our staffing levels down. But to do that, we weren't hiring people from outside the Agency.

We had very limited hiring to meet critical skill needs for quite a number of years. As we level off in our workload and budgeted resources, we ended up well below our allocated resources.

So, when we talk about increased hiring we're not increasing our budgeted resources, we're increasing the number of people to fill our budgeted resources.

And where we have in the past two years hired about 130 people from outside the Agency, last year we hired between 40 and 50 people from outside the Agency in 2020, in 2022 we're looking to hire as much as 300 people to get us back to where we need to be.

And as we did not have that input to that staffing, our demographic moved to the right and we have a tremendously experienced seasoned staff at the NRC today.

And that's been a huge boon to us as we've worked our way through the pandemic and met the challenges that we've had to have that tremendous amount of experience to apply. But we're not going to work here forever.

I'm happy to say the NRC is a great place to work and folks hit their retirement eligibility age and continue to work in most cases many years past their eligibility. But we are losing almost about 200 people a year mostly through retirements.

And so while we're hiring a lot this year, we're going to be hiring a lot in the out years as well. As we do that, we're going to find a point in relatively short order where a significant number

of the NRC Staff have joined the Agency since the start of the pandemic.

So, that gives us a challenge for knowledge management and transfer and a challenge for bringing on new people and teaching them what Chairman Burns referred to as the regulatory craft.

So, as we look to today, I see a tremendously experienced Staff that's able to meet the challenges. As I look to the shifting workload of the future and the uncertainties around that, we need to make sure we have the right people with the right skills in the right place at the right time.

And so this hiring and also Staff development, knowledge management efforts are key to that.

MR. FURSTENAU: This is another related workforce question.

You just talked about hiring efforts with the workforce but given the pandemic and the lessons we learned at the NRC with regards to the pandemic, what efficiencies did you see that would then maybe negate some of the need for additional workforce.

The question is what efficiencies did you see with the workforce?

MR. DORMAN: I think we did see some efficiencies. I think particularly as we embrace the challenge of unique licensing actions that were necessary because of the pandemic, we had a number of reliefs and exemptions that were requested by licensees from periods of training proficiency.

It didn't make sense to bring people together in a classroom in the middle of the pandemic. We had challenges to the minimal staffing in some areas and the ability to manage work hours within the work hour limits.

And the ability to turn those around in short order to enable licensees to continue to have the critical staffing that they needed in the control room, in the security force, in maintenance working through the outages when they're bringing 1000 people into the site into their COVID-19 bubble in the middle of the pandemic, it sharpened our thinking in how we engage a lot of the work that we do.

Whether that's something that gives us the ability to reduce resources in the future or just helps us, I think it also comes off our risk-informing initiative and really making sure that we're using risk insights to focus our resources on the most

important things.

So, I think there is some ability to transition to focusing on higher-importance activities. So, I think we'll be working through that in the coming months and year to understand the implications of that.

MR. FURSTENAU: Thank you, Dan. We'll shift gears a little bit. You talked about transformation in your remarks, transformation was talked about yesterday.

It's a term that's used a lot in the NRC but going forward, what challenges do you see that could affect whether your transformation efforts succeed or not?

MR. DORMAN: Change is always a challenge, we're moving off of how we've always done things, how we're comfortable doing things, and so that in itself is a change.

So, the change management process, I think the clarity for the Staff on why we need to make the change, and I think a lot of the efforts that we've done to provide an innovative environment and to provide the tools that support agency-wide innovation, provide opportunities for the Staff to

look at how they do things and say I can do this more efficiently, why do I have this in the process, why are we doing it this way?

And to provide a mechanism for them to raise those things, get them engaged, and bring about change. So, I think it's an opportunity for the Staff to engage that in a more personal way and take it on board.

And I think a lot of our Staff has seen the changes.

I think one of the things that we've been trying to do in recent weeks is to communicate among the leadership of the Agency, from the first-line supervisors on up, where we have had successes.

And communicating the successes helps others to understand what's possible and opens up more possibilities in the future.

So, I think those are probably the main things from the innovative standpoint.

On the technology front, I think the Chairman talked yesterday about how our CIO had positioned us well, fortuitously, going into the pandemic and we were able to just disconnect our laptops at work and go home and reconnect.

But as we look to the future in improvements in technology, I think the resources available to implement some of the technology improvements that may be available to us are an area that we continue to need to focus on.

Risk-informed decision-making, I'm very pleased with how the Staff has engaged the Be Risk-Smart methodology and advance the use of risk-informed thinking.

But as we've heard in the risk-informed technical session yesterday afternoon, there is still a lot of work to be done to continue to make better use of risk insights in our decision-making.

And the big thing is our people, that's always the first one although I put it last here as the anchor because our people are the key to our transformation.

And as we continue to bring in new people, as we continue to grow our people, engaging them and making them part of the process is going to be the key, ultimately, to our continued success.

MR. FURSTENAU: Thank you, Dan.

The next question is about Part 53 rulemaking and do you think the Part 53 rulemaking

will bring with it more certainty and predictability that a nuclear power-plant could eventually be built?

MR. DORMAN: I think it will just from the standpoint that the people who are developing those technologies have been actively engaged with the Staff in the development of the rule.

So, I think that engagement, that feedback will help to make a rule that will work for a broad range of technologies.

That said, I think I mentioned Kairos Hermes. We have a number of applications we're anticipating this year.

There are developers, there are utilities that are moving forward on getting permission to construct and operate new and advanced technologies before we get to Part 53.

So, I think it's a both-and proposition. I think Part 53 will help but I think we're going to get some activities moving forward independent of Part 53.

MR. FURSTENAU: A question related to that, you mentioned about Part 53, a broad range of technologies, but looking way ahead in the end, do you think the NRC will need regulations that are

specific to specific technologies?

MR. DORMAN: I hope not. There are mechanisms to work through license conditions and otherwise, if there are specific aspects of specific technologies that need to be addressed in the licensing basis.

We know that Part 50 has served us well for decades for specific technologies and there's been some very specific prescriptive things in there that make it a challenge for other technologies.

I think Part 52 through the design certification, there was an example where you do have specific technology incorporated into the rulemaking. So, I think that's a possibility.

The one thing that I think would drive us to a technology-specific set of regulations would be if we had one technology that really became very successful and we started to have a significant number of operating reactors in the future using that technology.

It's conceivable to me that we would learn things along the way as we have evolved Part 50 in many ways over the years.

I think there's potential that there

would be some evolution that would be best addressed for a broad number of licenses through generic activity like rulemaking.

MR. FURSTENAU: Thank you, Dan. We'll switch gears now on a question about the subsequent license renewal generic EIS.

How long do you think it will take to develop the revised generic EIS and will the NRC be able to approve subsequent license renewals prior to completion of these revisions?

MR. DORMAN: The Staff is working on getting that up to the Commission so I expect you'll see that in the next week or two, the timeframe that we're laying out for doing that GEIS.

The timeframe, what we have in our mind is on the one hand we want to give enough time to appropriately scope the rule, get good stakeholder engagement in developing the proposed rule for the Commission's consideration so that we can have a very focused comment period and hopefully move the process through in a very efficient manner.

On the other hand, I know that two sites had their previously approved license extensions pulled back to the original license extension of 60

years.

And while there's plenty of time for that end of license to accomplish the work the Staff needs to do, it changes some things for licensees and how they amortize capital investments.

And so it has the potential to cause delays in licensee improvements to site safety that were going to be accomplished under the subsequent license renewal rubric.

And so we know we need to move expeditiously to get this done and restore a clear reliability regulatory framework. The second part of the question was will we be able to approve before completing the GEIS?

MR. FURSTENAU: Correct.

MR. DORMAN: We will not be able to do that with the GEIS obviously because it will be incomplete.

I think there could be a path for a licensee to address the issues raised by the Commission in a plant-specific application, that would be a decision a licensee would need to make.

And if somebody wanted to pursue that path, obviously we would have appropriate engagement

with them. There are, as I mentioned, two sites that have had their approved licenses pulled back.

There are several sites that the Staff is nearing completion of the safety review and will not be able to complete the environmental review so we won't be able to issue those licenses in the near term and those licensees will have to make decisions about whether they want to supplement their application to keep it moving forward.

And then there are a number of licensees that are in the process of developing their subsequent license renewal applications and they will similarly need to balance the risk to their business plans and make decisions accordingly.

But those are basically the two options, for us to complete the GEIS, or for an Applicant to develop a plant-specific environmental report that addresses the issues raised by the Commission.

MR. FURSTENAU: Thank you, Dan. We have time for one last question. It's again a lessons-learned-related question.

What lessons have you learned from the pandemic regarding advanced reactor reviews that you can build on to ensure more efficient reviews moving

forward in a hybrid environment?

MR. DORMAN: I'll go back some of the comments the Commissioners made yesterday about the value of in-person inspection.

And I think in licensing space as well, in-person engagement through audits that we use in the licensing process enables more fulsome engagement between our reviewers and the licensee's technical staff or the Applicant's technical staff that enable us to have clearer communication from the Applicant and gain full understanding of the Staff's gaps, and concerns of the Staff, to gain a fuller understanding of the work that's been done by the Applicant.

I'm helpful that we're going to start getting much more of that in-person engagement as part of our process and that will help us to be able to more effective and efficient as we work through the various applications on our plate and the ones coming to us.

MR. FURSTENAU: Thank you, Dan. Thank you so much for your remarks and answering questions.

We tried to get to as many as we could but we're running out of time. I would ask one question that's come up, folks would like to see the

QR code that was in your last slide.

So, maybe when we close, if the folks put up that QR code as we close that would be great. Thanks, Dan. And one last reminder, our next special plenary session is on waste and water, the future of decommissioning efforts at the Fukushima Daiichi nuclear power station.

And we'll have a break and that'll begin at 9:00 a.m. Eastern Time and we hope to see you there. Thank you, and the session is closed.

(Whereupon, the above-entitled matter went off the record at 8:45 a.m.)