UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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36TH REGULATORY INFORMATION CONFERENCE (RIC)

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COMMISSIONER BRADLEY R. CROWELL PLENARY

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WEDNESDAY,

MARCH 13, 2024

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The Plenary Session convened at the Bethesda North Marriott Hotel and Conference Center, 5701 Marinelli Road, Rockville, Maryland and via Video-Teleconference, at 8:45 a.m. EDT, The Honorable Bradley R. Crowell, Commissioner, presiding.

PRESENT:

BRADLEY R. CROWELL, Commissioner

ANDREA VEIL, Director, Office of Nuclear Reactor Regulation

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

(8:45 a.m.)

MS. VEIL: Good morning, everyone. I was trying to ease you all into it a minute ago and just say let's start to like ease those conversations down and get that last critical statement in, but my mic wasn't on so none of you heard that.

Good morning, and welcome to Day 2 of the RIC. I trust that you enjoyed yesterday as I did. There were a lot of engaging sessions.

Before I start and introduce our next plenary speaker, I really want to give a shout out to the Office of Public Affairs who has been working tirelessly following all of the highlights of the RIC and posting on X, Facebook, Instagram, and LinkedIn. So thanks to our partners in the Office of Public Affairs. Give them a hand.

(Applause.)

MS. VEIL: And now it's my honor to introduce the next plenary speaker. The Honorable Bradley R. Crowell was sworn in as a Commissioner of the U.S. Nuclear Regulatory Commission on August 26, 2022, and is currently serving the remainder of a five-year term ending June 30, 2027.

Commissioner Crowell has more than 20 years of experience in the fields of energy, environment, natural resources, climate change, and national security, including executive leadership positions in federal and state government.

Prior to beginning his tenure as Commissioner, he served as

Director of the Nevada -- I said it right, Nevada. Right? I practiced. Nevada Department of Conservation and Natural Resources as an Assistant Secretary of the U.S. Department of Energy. Please welcome Commissioner Crowell.

(Applause.)

COMMISSIONER CROWELL: Good morning, everyone. I see it's a full room this morning. Welcome to Day 2 of the NRC's annual Regulatory Information Conference. Thank you, Andrea, for the very nice introduction.

I am honored to be here today with my fellow Commissioners, past and present, and all of our international partners, which is, I am told, representing about 48 countries, and all of the other distinguished guests.

I am excited to collaborate with all of you as we have been doing this week and will continue through the end of the RIC under the very appropriately themed, theme of this year of adapting to a changing landscape.

Much has changed and much is continuing to change. That being said, and I am going to make an attempt at humor here early in the morning, which Chair Hanson knows is difficult.

The change I am feeling the most since last year is the horrible time slot I received for this keynote.

(Laughter.)

COMMISSIONER CROWELL: Because, for those of you who know me at all, I am not a morning person. In fact, from my perspective the

only thing worse than listening to a keynote before 9:00 a.m. is having to give a keynote before 9:00 a.m., with obvious exceptions: Chair Hanson, your keynote was invigorating.

(Laughter.)

COMMISSIONER CROWELL: But if -- So, Ray, John, Andrea, we'll be talking, but now I will try for bad dad humor. If I am given the early bird slot again next year, I'll be sending my digital twin to represent me.

So, one more anecdote to set the stage here, some of us were able to at lunch yesterday listen to some remarks from Mike Allen, who is the head of Axios and Politico and he was sharing with us parts of his new book called "Smart Brevity."

I had a copy with me but I left down at my seat. Let me just say that this keynote will break every rule in that book. It will be too long and not -- it will fail at brevity. I hope it has some elements of smart. So, bear with me.

So, the RIC, this is my second time I have been at the RIC. I am now familiar with the lexicon, but when I first heard the RIC it occurred to me that it's about the least exotic name you could have for an international conference. But the genericness of the name belies how important this is, and how valuable the RIC is for all of us and the participants both in the U.S. and around the world. So, thank you all for being here.

The opportunities to collaborate with my colleagues and other professionals in the field is great, but I know there is a lot of

young professionals and students here and participating online and, you know, I think they are the most important audience for us today.

They are the ones who are going to have to carry forward whatever direction we chart collectively for civilian nuclear technologies ahead.

So I'll extend another special welcome to our international partners, particularly our regulatory partners. I know many of you traveled long distances to be here. It is a privilege to be able to have some time to talk with all of you.

Before I dive into my remarks I will also, like my colleagues who went before me yesterday, will shamelessly plug my technical session, which is this afternoon, on the changing landscape of environmental reviews, another area that has been changing and continues to change significantly.

I'd be lying if I said I wasn't planning to try to get in a quick nap before that 3:45 p.m. session, just so you aware, because in addition to this time slot the lost hour for us in the U.S. earlier this week is exacerbating my grumpiness today, so thank you.

I have to give a shout out to my staff because without them I couldn't do what I do and none of us could do what we do, so please allow me an opportunity to do that.

Their guidance and insight is essential for me. So, while she's not here today, first and foremost I would like to recognize Jan Lepre, my Executive Assistant.

She has been with me since day one and she is fabulous. I

could not have navigated the NRC in my early days and weeks without her and, quite frankly, it's difficult to do it without her even today.

Two others who joined my team shortly after I became a Commissioner, David Brown, my Technical Assistant for Materials, Maxine Keefe, my Deputy Chief and Legal Counsel, and then earlier this year I was fortunate to add two new members to my staff, Amy Powell as my Chief of Staff and Boyce Travis as my Reactor Technical Assistant.

I am very proud of my team. They bring their "A" game every day. They are committed to public service and advancing the public good and they are true professionals, so I appreciate all of you for what you do.

So to begin, and a little bit more substance, I wanted to first share some of my perspective on why I am honored to serve on the Committee, sorry, on the Commission, and my expectations that I have for the remainder of my term.

When I was asked to serve on the Commission I immediately viewed the NRC as offering a unique opportunity at a crucial time to enable the safe application of civilian nuclear technology to address some of the most challenging and pressing issues facing our country today.

Logically, and perhaps obviously, climate change and energy security quickly came to mind, but there are many other important policy objectives where the safe application of nuclear technologies has a potential to result in significant benefits for our society and we must not lose sight of those.

We have talked about them this week, but there has been very many exciting new developments in nuclear medicine and agriculture, just to name a few. These could be game-changing applications and are as important as anything else we do at the agency.

So as a lifelong public servant, I have always viewed my role and responsibility to be mindful of both a specific mission of an agency, as well as how a given agency's mission fits into the bigger picture of government's overarching responsibility to advance the public good.

At the federal level, in my view, every agency, no matter how big or small, whether a cabinet department or an independent agency, shares in the collective responsibility to the American people, for whom we ultimately serve, and we must execute this duty with our eyes wide open.

So what does that mean for the NRC and how do we get there? Well, as my colleague Commissioner Caputo mentioned yesterday, time is of the essence. I think we all know that. We are a little bit at a "now or never" moment.

First, I believe, on the reactor side, we've got to ensure that the current fleet of nuclear reactors in the U.S. can continue to meet our public health, safety, and security standards and we must do so in the context of an increasingly complex geopolitical environment and while adapting to the rapidly accelerating impacts of climate change.

Unfortunately, the climate change is intensifying. The

impacts are becoming more frequent and unpredictable and they are affecting our entire energy system and that is from generation to transmission to distribution.

These are things we will have to deal with in the near and medium term, no matter what we do on bending the curve, the carbon curve, through 2050. So, for nuclear, that means we need to take seriously and prepare for, you know, unexpected impacts from climate change and perhaps other natural hazards.

So, just as we must ensure the integrity of our current fleet, particularly in the context of nuclear safety and climate resilience being linked, the NRC is not -- I'll acknowledge that the NRC is not, you know, in the driver's seat on climate change and energy security in terms of setting domestic or international goals related to those issues. But the NRC still plays an important role in the collective effort to enable success of those policy objectives, and at the very, very least the NRC must not be a hindrance to that success.

While always maintaining public health and safety first and foremost, we must be enablers. So, as we looked ahead for the NRC in that regard, moving past our current fleet, we must also be prepared to efficiently review an increasing number of new license applications for advanced reactors.

Many of these reactors will use novel fuels and designs and incorporate advanced safety features, which is exciting, but is different than what we have in the past that has primarily been light-water based.

In doing so, it's my view that the NRC must take this responsibility on within a broader sense of purpose of where our agency fits in. I think our purpose needs to include our specific regulatory function but in a thoughtful context of, you know, ensuring that facilities are safe, that they are sited in a resilient way, constructed well, and can ensure reliable operation and we have to work with our federal partners to ensure that that happens.

It's no small task. Inter-agency coordination is difficult, but we need to be mindful of how we fit into the bigger picture. These are big challenges. I welcome them as tremendous opportunities.

I think the entire agency should see it that way. It's an opportunity to embrace… He didn't say it yesterday, but as my colleague Commissioner Wright likes to say is it's time to meet the moment.

We need to be able to do that. The moment is now and so we all got to move together collectively. But the NRC is just one piece of a bigger puzzle that we are all here to help solve today.

We all play a different role in sharing our path to that goal, and this includes international cooperation, not just our domestic efforts. Cooperation among peaceful nations will benefit us all.

So one thing that the RIC really offers that I have valued is an opportunity to talk to, for me and my colleagues as we talk to our counterparts, with many of you, we get to better understand each other's needs, the progress we have been making, an opportunity to identify new opportunities for collaboration.

I think that the coordination and collaboration of the international community is equally important as our domestic engagements in terms of ensuring success for nuclear in the years ahead.

You know, I think all of us from our various vantage points know that the table today has probably never been better set for civilian nuclear energy technologies to overcome some of the historic challenges it has faced.

The policy and financial incentives, the political alignment, public support, a multifaceted geopolitical context with many imperatives therein, all are in favor of nuclear as a solution.

But that time is now and it probably is not going to come again so I think we need to make real progress in the intervening years through the end of this decade.

This is a confluence of policy politics and financial support for nuclear energy that is rare in any policy area and it's an alignment that is unlikely to ever repeat itself again.

So, as of today, I have approximately three and a half years remaining on my current term on the Commission, or, to be exact, 1,204 days. I plan to use every one of those to make a difference.

To be fair, I would take this approach regardless of the critical point at which nuclear is at, but in the context of my role as an NRC Commissioner I really want to be part of the solution and I want the agency to keep apace.

So what's happened in the 364 days since I last stood before you on this stage: a lot, and I hope that trend continues. My colleague

have already eloquently spoken yesterday about a number of things, recent developments, the construction permit on the Hermes non-power test reactor, Vogtle 3 starting commercial operations, which coincided with my birthday, thank you, Vogtle 4 hopefully by the end of this year, sooner rather than later hopefully, a demonstration project for HALEU, all are successes since last year's RIC.

I don't think any of my fellow Commissioners nor myself envisioned the leaps and bounds being made in fusion energy in this last year either. I think that probably goes for all of you in this room, except for those maybe working on fusion.

Now there is still a long way to go on fusion both technically and economically, but at the current pace of technological advancement and financial investment fusion energy systems could start giving fission reactors some healthy competition in the next decade. We'll see if that materializes, but I really encourage that as a healthy thing.

The NRC should be proud of the fact that it recognizes these advancements happening in fusion and elsewhere and for fusion specifically, you know, last spring we directed the NRC staff to create a regulatory framework for fusion energy systems building on the agency's existing process for licensing the use of byproduct materials.

That's going to be a new approach for technologies that generate energy, but I think it's the right one, but it does mean there is a lot to do between now and when that regulation, you know, cooperative regulation would start happening, so we need to make sure

that we stay on top of it.

Like all of you this in room, I have been a long-time energy watcher and I have been excited to see fusion starting to progress so quickly, but it's a hard concept to grasp sometimes because of the tremendous potentials it provides, so I have also wanted to see it in person for myself.

It's been a long time since my time at DOE being able to go visit the NIF. I wasn't sure what to expect, to go see some of these early-stage fusion startups and I got a good picture of that last August.

In fact, Commissioner Wright joined me and we went to visit Helion and Zap Energy based near Seattle, Washington, and in a few weeks Ambassador, sometimes I call him, Commissioner Wright, will join me again to go to Massachusetts and visit Commonwealth Fusion Systems.

Coincidentally between Washington State and Massachusetts from the Agreement State regulatory perspective, these States leading in this area is really important.

They have strong State programs and hopefully will set the stage for other Agreement States to set up a strong regulatory framework for fusion that will enable success.

Turning back to fission for a quick second, the Commission took another step within the last year in optimizing the NRC's readiness for their new generation of reactors by approving a final rule establishing emergency preparedness requirements for small modular reactors and other new technologies, are, of course, public, so you may

have seen I did not agree with everything in this rule as adopted, and that's okay.

It's healthy in my mind to explore different ideas, experiences, opinions, and expertise when talking through issues with my colleagues. The most important thing is that Commissioners and their staff communicate with one another on a regular basis, including sharing individual viewpoints, but also listening to and understanding the different views and unique insights that we each have.

There will be disagreements, some are small, some will be big, but ultimately I believe that better policies will result when you have a diverse body that engages in true collaboration, so I look forward to continuing that with all of you.

Personally, whether I agree or disagree in whole or in part with one my Commission colleagues, I still benefit from the forthright collegial discussions that we have been able to have.

As a result, I am able to draft more thoughtful and informed votes and I thank you all for that. I also think that this is exactly what Congress intended when establishing the NRC as a Commission-led agency where it's designed to formulate policy as a collegial body rather than establishing it with a single administrator.

Congress I think is -- I hope I won't get in too much trouble for saying this -- they probably deserve a lot of heat for a lot of things, but on this one I think they got it right, and I look forward to continuing that, and at a full complement of five where at which the Commission works best, in my opinion.

Speaking of good examples of collaboration, and this was touched on my colleagues as well but I can't skip over it, we marked a significant milestone recently by completing deliberation on the staff's draft rule for advanced reactors, affectionately called Part 53.

Reaching this point in development of a modernized regulatory framework for new and advanced reactors has been a long time coming, though I might add it's still well ahead of the schedule set by Congress and we're going to keep apace.

There were highs and lows as most of you know in this process and many bumps in between. That being said, I am confident that the proactive approach taken on Part 53 by NRC staff to engage the public was the correct approach.

Moving forward be it in the context of Part 53 or other significant rulemakings, I would encourage the NRC staff to make targeted, smart, informed process improvements to how we do that engagement, but while absolutely continuing to employ that collaborative model of early and meaningful engagement with all stakeholders.

I think it was one part of the result when it came up to the Commission level and we all started to collaborate and vote that it went very well.

I mean our staff knocked out most of the issues. We engaged as principals on a couple and that was really telling and a testament to the ability of the Commission to do big things.

Two other important things that the Commission is in the process of advancing both for new and advanced reactors and the operating fleet, last week I voted on a proposed rule to establish the Generic Environmental Impact Statement for new reactor technologies, which was of interest to many of you.

Again, last week, it was a busy week, it has been noted, I voted on a final rule on a complementary Generic Environmental Impact Statement specific to license renewal for operating reactors.

For each rulemaking, I applaud the staff's efforts in taking the approach of generically addressing certain issues and focusing environmental review efforts on site-specific issues without shortchanging environmental reviews or undermining our NEPA responsibilities.

We will need this kind of novel yet conscientious thinking in our approach to the many critically important reviews that the NRC does and it's I think a role we could not have necessarily, which is an area not necessarily imagined years ago.

I want to express my appreciation to Chair Hanson for his leadership, which comes in many forms, but one area where I am very appreciative of his proactive efforts is his tasking of the NRC's General Counsel to take a fresh look at the Commission's mandatory hearing process and find ways to identify efficiencies for carrying out a requirement that is a statutory obligation for us.

I think Chair Hanson and I and our colleagues believe there are many efficiencies that we can find internally to help smooth the

process and have it be more appropriate for our modern day context and in recognition of the experience gained over the years.

You will hear about more encouraging developments from the NRC staff this week. You probably already have as part of remarks and technical sessions. I hope you are sharing in kind the things that you are doing from your respective roles. There is a tremendous amount of work to be done and we must continue to make timely progress.

I will now turn to other parts of the fuel cycle for just a few minutes. If any of you have chatted with me before or heard me speak in public you'll know that I'll never miss an opportunity to discuss both the front and the back end of the fuel cycle.

I'm a glutton for punishment, but I firmly believe that the NRC's regulatory decisions will have broader and more durable acceptance if we demonstrate to the public that we are mindful in considering the entire fuel cycle and options and challenges therein.

You know, particularly the front-end fuel cycle challenges are being exacerbated by geopolitics, and so Russia's invasion of Ukraine has dramatically changed that landscape and has forced a recognition that we probably should have addressed many years ago, but we can do it.

To achieve true energy security the U.S. must make progress to both our domestic uranium milling conversion and enrichment capabilities and we must continue to do so on a timeline commensurate with the progress of new and advanced reactors in this country.

This is our chicken and egg dilemma, but we need to pursue

both in earnest, and do what we can to make sure that the timing aligns. That being said, it's also my firm belief that we must keep an eye on the back end of the fuel cycle.

In fact, on the front and the back end of the cycle, I view it as irresponsible to utilize nuclear energy to lower emissions and help address climate change if in doing so we knowingly allow nuclear energy to become the harbinger of new multi-generational threats to our public health, safety, and economy, namely in the form of un-managed spent fuel and nuclear waste or exacerbating the challenges of nuclear proliferation.

As my colleague Dr. Katy Huff put it during congressional testimony earlier this year, the promise of new and advanced reactors can most responsibly be realized in conjunction with progress on the management of their spent nuclear fuel. Personally, I could not agree more.

As the NRC moves forward with research, rulemaking, and licensing of new nuclear technologies, energy generation technologies, we must not lose focus on the responsible management or re-use of spent fuel inventories coupled with the timely advances in nuclear waste storage and disposal tragedies. The NRC, again, must keep apace.

We must also be thoughtful about how we successfully manage the decommissioning of all types of facilities. The NRC staff recently delivered the draft final rule for decommissioning reactors to the Commission for our consideration.

This is an important rule to many of the stakeholders in

the room and notably to the communities that have hosted or will host operating nuclear power plants or have questions about issues such as site restoration and how spent fuel will be addressed.

With this rule the NRC will establish rules of the road for these sites where it could decades to complete decommissioning. I am coming into this important rulemaking near the final step, but it has my full attention given its long-term impact.

So whether we are talking about abandoned uranium mines, uranium milling, mill tailings, disposal sites, low-level waste disposal facilities, the NRC has a shared responsibility to bolster the government's social license with respect to responsibly and proactively managing the back end of the fuel cycle and in doing so we need to be conscious and mindful of the missteps of the past and not to repeat those mistakes. That is a basic and obvious obligation as public servants, in my opinion.

In his remarks yesterday, Chair Hanson also talked about trust being a key component to the NRC's success moving forward. I agree wholeheartedly. He and I have had many conversations on this topic.

But as he knows and I know, trust must first be earned and then carefully maintained. Although the table right now broadly appears to be set for success from a policy and political perspective for nuclear, I don't see a nuclear renaissance in the United States taking hold without commensurate trust from the public that the NRC, and truly all of us, not just the NRC, is doing what's in the people's

best interest.

Public trust and engagement are precursors to everything we hope to achieve as an agency. During my career in public service at both the state and the federal level, I have been reminded time and time again that nuclear issues always garner significant public interest.

As such, the proactive community engagement must always be an early priority. I have engaged in many conversations and heard from numerous stakeholders over the last year and a half about licensing and regulatory efficiency, and rightfully so. These are important things.

But in my mind in addition to the standard definition of what we think about efficiency from a public agency perspective efficiency also means that everyone, public citizens, state governments, tribal governments, industry and beyond are entitled to a fully transparent and accessible nuclear regulatory framework and associated licensing and oversight.

Procedural justice for everyone is essential. And taking time on the front end to educate and build relationships with local stakeholders will ultimately result in more efficiency than attempting to skip that vital step.

As I read recently in the press, former NRC Chair Dale Klein recently said, well, trust is hard to gain but easy to lose and, again, I could not agree more with that sentiment.

We must put in the work with the public. Doing so will form the foundation for the public to have confidence in the regulatory

process.

Unfortunately, this challenge also comes at a difficult time for the NRC and all federal and other government agencies. Whether fair or not, Americans are increasingly losing faith in their government.

There are polls from late last year that found 44 percent of Americans have a great deal to a fair amount of trust in the federal government to handle international problems.

Even fewer, 37 percent, have a great deal to a fair amount of trust in the federal government to handle domestic issues. That's what we would say in political terms is being under water. We need to improve upon that.

Since the NRC works on issues in both arenas, we've got some serious work to do, but we're not alone. In my view it's incumbent upon all of us, all public officials, to work to reverse this trend through our daily actions by maintaining the highest standards of accountability and active engagement with the public who we ultimately serve.

As Commissioner Wright suggested in his speech yesterday, every NRC employee is an ambassador representing our mission, our service, and what we value. He's right.

And I also believe that every NRC employee should help communicate what it is that we do and why it's important. And for our recruiting and hiring managers I actually think that they should use Commissioner Wright's video as a recruiting tool. It would be the envy

of the CIA, if you have seen those commercials.

In all seriousness, while Commissioner Wright's video may have been entertaining, it was also effective because it told a part of the NRC experience in terms anyone could understand and appreciate. That is exactly how the NRC needs to introduce, or re-introduce, itself with the public, by engaging stakeholders at their level, using plain language and real-world context.

Explaining nuclear power and other nuclear applications, not to mention the regulatory role of the NRC, to average folks is challenging. Personally I will seek out opportunities to explain exactly what I do as an NRC Commissioner to my family, friends, and neighbors, occasionally to an Uber driver.

It's not always easy, but usually if I take a moment to assess my audience I can find a way to connect. I believe we all have the responsibility to do this in our respective roles and our daily lives, but particularly those of us in public service.

I don't believe it's the public's responsibility to understand nuclear physics. I view it as the NRC's responsibility to explain our job in ensuring the peaceful application of nuclear technologies to the public in a manner that they can understand.

I know there are lots of smart people in this room and the NRC has some of the smartest people I have met in my career. But as Albert Einstein said, and I think his birthday is tomorrow, which is always convenient for the RIC, if you quote "If you can't explain it to a 6-year-old then you don't understand it yourself." I think that's

true as well.

We've got to be able to reach a broad audience by explaining things in everyday terms. So I issue that challenge to all of you, especially if you are an NRC employee, engage with your friends and neighbors, especially the younger generation, and tell them what you do and why it's important.

If they understand then you have succeeded in that instance, but if not keep trying. I have failed many times and have refined how I discuss these things and it's important to be able to do that. By having those small conversations, the seeds you sow with them will sprout tomorrow and there will be a benefit to all of us.

But all of the successes that we have had at the NRC and hope to continue to have and our preparations for a bright future for the safe application of nuclear technologies won't be possible without the NRC staff, the people power that we use to do these things.

We have talked about this numerous times already this week, but, you know, the NRC particularly needs to retain the amazing experts that we have had at the agency for so long but do so while preparing and recruiting a new generation to work with us, and transferring that knowledge to have continuity.

Engineers, scientists, operators, security specialists, trades and crafts, attorneys, administrative support, and everything in between, we need it all, and I am concerned with that hill that we have to climb. Our experts in all things nuclear-related are also increasingly retirement-eligible.

And on the other end of the career spectrum, for young professionals, there is reason to be concerned about how we will re-fill the very limited talent pool. Earlier this year, a survey of 34 universities with nuclear engineering programs found that the overall number of nuclear engineering degrees awarded in 2021 and 2022 were at their lowest levels in more than a decade.

And data on crafts and trades is not encouraging, either, with less than nine percent of workers age 19 to 24 entering the trades. Trends like this fuel my continued concern. But from a microperspective, and somewhat anecdotally, I will say that I am encouraged, at the same time, when I talk to students and to visit universities, and I think many of my colleagues have had the same experience.

Last year I was able to spend time with students at the ANS Chapter at the University of Nevada-Reno and with their faculty advisors, and the amount of talent and smarts and enthusiasm in that room were overwhelming and it made me feel insufficient in terms of like "how do I bottle that up and direct you towards the NRC?" Or, if not the NRC, in this space that will help address all of our issues and the big issues that we need to do today.

At some point, Ray, you and your leadership will have to give all of the Commissioners an easy like here's your route from school to working for the NRC, and not just for the lawyers, but for the technical folks, so we can be good ambassadors when we are out on the road.

So let's all do our part to keep, you know, making that pool of the workforce that we need so desperately continue to grow.

In this context the NRC has got some high bar hiring goals. We've got some real challenges, but we're pushing hard to do it. Our hiring targets account for attrition as we, too, have had a workforce that is increasing retirement eligible and our talent is being heavily recruited by others who need the skills and expertise and, let's be honest, others who can often compensate better than the federal government can.

I don't begrudge any of you for going out and getting the best talent you can, but the NRC needs to do the same and we can offer something intangible that a salary cannot, which is the opportunity to see a part of the process and be part of advancing the public good in a way that you can look back and say you were part of doing big things.

We really need to sell the value of public service and the unique opportunities at the NRC. It is a special place to work and we should recognize that by using it as a recruiting tool.

So, you know, to all of our current NRC staff, thank you for who you are and everything that you do. Change is always challenging, but it's always good as well, and we've had a lot of it and we will continue to have a lot of it.

I implore you not to be discouraged but to look at this as an opportunity to build your own career and make the agency a better place. I want all of NRC's employees to continue to find new strategies for engaging and communicating with all of our stakeholders. We need

you, your expertise, and your mentoring of the next generation of NRC employees.

Every day I come into the office, I am humbled to work with you and I am awed by the accomplishments you have made in the very difficult areas. I want everyone in the NRC workforce to feel like you are part of a generational opportunity to make lasting change. We are all in this together.

I also want to acknowledge the incredibly important work and the role of the Advisory Committee on Reactor Safeguards, or ACRS, which, put simply, and I think everyone in this room probably knows this, is the NRC's technical conscious and plays a vital independent, indispensable oversight role in this social license framework. Any time that I am preparing a vote on a matter that ACRS has reviewed in full or in part, I want to know what they have said. I value their expertise, their outside-of-the-building look at safety-related issues, and the informed opinions about the staff's work.

As the Commission formulates policy in areas never before considered in many cases, I want to know our Advisory Committee's views on these new technologies and how the NRC is setting expectations and frameworks for their safe use.

In recent years, the utility of the Advisory Commission has been called into question. Everyone under the NRC umbrella, including the ACRS, is seeking to keep a pace and prepare for the myriad of workload scenarios that we face.

The Advisory Committee is also adapting to its role and

their doing so is critical to our success. I've talked to the current chair of the ACRS and they understand that they need to refine and improve their process as well, so there is strong recognition of what is before all of us and now we need to put those things in motion.

So thank you all for the role you play in making and turning opportunities into reality. Thank you for indulging me for this long to share my perspectives. I will wrap it up so I can move on to my favorite part of these engagements, which is Q&A, so thank you all. Andrea, I am ready for the hot seat.

(Applause.)

MS. VEIL: All right. We've got about four minutes.

COMMISSIONER CROWELL: I went on for that long?

MS. VEIL: Yes. So, I'm going to start right in.

COMMISSIONER CROWELL: Oh, I'm sorry. Yes.

MS. VEIL: So in your speech, you talked about building public confidence and maintaining that confidence and that is critical for nuclear to become a viable source of energy.

What would you say if it applies or how it applies to nuclear waste and also the back end of the fuel cycle?

COMMISSIONER CROWELL: It's as, if not more, important on the front and the back end of the fuel cycle. I mean we have a pretty clear stark example on the back end where failure to do proactive engagement resulted in a serious impediment to making progress on storage of spent fuel.

So, you know, we've got to recognize that, not repeat it,

you know. The NRC's role is obviously on the lighter end of that topic, but we still have a role to play there and, you know, what the NRC is doing now in regards to some of the interim storage projects, the same theories apply there, and what we are doing in looking at front end milling and mining and things like that are also very real and call for that kind of engagement in a way that perhaps wasn't done well in the past.

MS. VEIL: Okay. Next question. If risk insights and risk-related information are to be integral to the future of expediting various licensing processes, how do you ensure that NRC management and staff as well as the industry have an aligned understanding of these processes so that implementation is consistently gaining efficiencies while maintaining a balanced focus on public health and safety?

COMMISSIONER CROWELL: That is an SAT-style question.

MS. VEIL: Yes, well --

COMMISSIONER CROWELL: Well, I mean I'll try to answer briefly since we are short on time, but there needs to be consistency throughout the agency in how we engage, there needs to be management accountability for engaging in ways that are going to be more efficient while upholding our safety case.

This is why we are, you know, we're an organization with various levels of leadership and they all need to play their role, but I would say, you know, our mid-level employees and interim-level employees need to give feedback up, too, if they are hearing contrary or contradictory direction.

So I think consistency and accountability, while it may sound boring, are essential for an agency as large and as complex as the NRC is.

MS. VEIL: And you must be clairvoyant because you covered the next question in your answer so I am going to skip to the last question, which is how can the NRC recruit and retain more young people?

COMMISSIONER CROWELL: Two ways, in the 30 seconds we have here, do our part in fielding the talent pool from our university grant programs and things like that, be innovative and modernizing the way we recruit and hire and joining with partners domestically and internationally that are doing workforce efforts.

I know our friend DG Magwood is here and he is doing a lot of good things in that regard at NEA, and we can learn from it, as well as some of our partner countries are doing a great job building their talent pool and recruiting them. So we could stand to learn and benefit from those efforts.

MS. VEIL: Thank you.

COMMISSIONER CROWELL: Thanks.

MS. VEIL: I think we have a couple seconds, but not enough for another question, so --

COMMISSIONER CROWELL: Okay.

(Applause.)

COMMISSIONER CROWELL: Thanks, Andrea.

(Whereupon, the above-entitled matter went off the record at 9:30 a.m.)