

U.S. NUCLEAR REGULATORY COMMISSION

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37TH ANNUAL REGULATORY INFORMATION CONFERENCE

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COMMISSIONER HANSON PLENARY

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TUESDAY

MARCH 11, 2025

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The Session was held at the Bethesda North Marriott Hotel
& Conference Center and via virtual platform, at 11:15 a.m. EDT.

SPEAKERS

THE HONORABLE CHRISTOPHER T. HANSON, Commissioner, NRC

LAURA DUDES, Acting Director, NRR

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

11:17 a.m.

MS. DUDES: Good morning, again. Thank you for that. That was amazing. Do you want me to bring this up a little bit or do you think you're good? That's great.

So what an incredible morning we've had thus far. So it is my honor to do the introduction for Commissioner Hanson this morning and that will conclude, after his remarks, will conclude our plenary session. And so when he is done speaking, you will have the opportunity to continue networking, looking at our digital exhibits and enjoying your lunch break. And coming back for an afternoon filled with sessions and technical engagements here at the RIC.

So without anything further, I would like to introduce the Honorable Christopher Hanson. He was reappointed by President Joe Biden to a second term ending June 30th, 2029. He was first sworn in as a commissioner on June 8th, 2020, and designated chair by President Joe Biden, effective January 2021. He served as our chair here at the NRC for four years. Please join me in welcoming Christopher Hanson. Good luck.

COMMISSIONER HANSON: See if I can get this right. Thanks, Laura, for that. I think, believe it or not, I think we've got the podium just about right, but as Laura said, you know, I was thinking about this. I think the 11:15 spot might be the

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toughest spot in the RIC, right? Because we're now into like hour four of our day today. The caffeine has worn off, and I'm pretty sure I can hear everyone's stomachs grumbling out there. So I thought I would try and just do everyone a solid and forgo the Q and A questions and just make -- just give my remarks.

I'll also say up front, kind of per John's point, I don't know what's making my hands sweat more, having to give this speech or actually listening to Commissioner Caputo's story about falling down that ski hill and to say nothing of the inspiring story of coming out the other side.

So again, I just want to extend my welcome to everyone here this morning at the Marriott. I want to add my congratulations to Chairman Wright on your appointment and thank you for your kind words. And on frankly, another successful RIC surprise with that video this morning. Consider, Mr. Chairman, this my audition for next year's video, the ghosts of chairmen past.

(Laughter.)

And I want to thank the Chairman, of course, my fellow Commissioners, too, for their continued collegiality. I mean our ability to work together and move forward together, even when we disagree is really critical to the functioning of our agency and our ability to meet these substantial challenges head on. I also see Steve Burns and Bill Ostendorff and Jeff Merrifield. I'll

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just add my greetings. I look forward to catching up with each of you and I'm so glad you guys could be here.

As always, I really like to start by thanking my team for their wise counsel, their unwavering dedication, and most especially, their good humor. So my sincerest thanks to Molly Marsh and Jessie Quintero, Olivia Mikula, Tony Nakanishi, Lisa Dimmick, Kathleen Blake, Mandy Mauer, Patty Jimenez, Caty Nolan, Becca Susco, and Ken Armstrong. Thanks to you all.

And further, I'd be remiss if I didn't join the Chairman and Commissioner Caputo in thanking so many of the folks who have made this event successful. So to the RIC Planning Committee and our many staff volunteers, thank you.

As I have for the last three years, I just want to take a moment to recognize our Ukrainian colleagues here today. I continue to be in awe of your strength, your courage, and determination in the face of horrific, unwarranted, and illegal aggression. I remain personally committed to assisting the SNRIU as you build a future that includes a free and restored Ukraine.

Last year, I said reflexively doing things the way we've always done them is not going to work. I expect every leader in the NRC to look closely at the why of our policies, processes, and procedures and then develop more efficient and effective ways to accomplish our safety mission while making room for the increased scope of work. I still believe that and I've seen lots

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of signs the NRC staff believe it, too. But let's be clear. Efficiency has been part of this agency's story from the very beginning featuring prominently in the NRC's very first report to the Executive Branch in 1975, and evolving over the last 50 years to move us forward. You've heard all of this, including from me, several times over. And I think a speech focused solely on the changing energy landscape risks missing the important and the full import of our current moment.

Everyone in this room understands that we're living through a consequential time, one with implications far beyond nuclear. So instead of making the case for change this year, I'm going to make the case for the things that need to stay the same while we change, for upholding the principles that are critical to institutions like the NRC because we cannot hope to meet our future at full strength if we lose sight of what's really important.

As Ronald Reagan said, good citizenship and defending democracy means living up to the ideals and values that make this country great. We are a nation of ideals and these ideals permeate the work we do every day at the NRC.

The very first law passed in the United States by the United States Congress established an oath of office for civil and military personnel. It was very simple. It said I do solemnly swear that I will support the Constitution of the United States. Today's version dates back to the Civil War and Reconstruction.

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Every public servant and current or former military member surely remembers their first day of service and the oath they took. I do solemnly swear that I will support and defend the Constitution of the United States against all enemies foreign and domestic, that I will bear true faith and allegiance to the same, that I take this obligation freely without any mental reservation or purpose of evasion, and that I will well and faithfully discharge the duties of the office on which I am about to enter so help me God.

I have a picture hanging in my office of my swearing in ceremony and when I recited that oath, through a mask, at the very beginning of my time at the NRC. And it serves as a pointed reminder of the duties that accompany the position with which I continue to be honored.

Now my speeches over the last five years seem to keep returning to a few key themes, the importance of institutions, service, diversity and inclusion, public trust, confidence, and I want to continue to build on these today because I think they're more important than ever. Indeed, my very first RIC speech delivered in an empty room due to pandemic protocols, was fundamentally about the institution that is the U.S. Nuclear Regulatory Commission. I was and continue to be an institutionalist. And I also believe institutions need to be in a constant process of reform. We're humans after all, and our

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institutions often reflect back on us our frailties, prejudices, and short-sightedness. And part of the moment that we find ourselves in as a country is a product of some institutions' failure to adapt and meet our country's needs. And yet, flaws and all, institutions provide a structure for human endeavors, large and small. They transmit values and norms and they're stable, lasting, and consequential when they stay true to their foundations. It is up to us, it is up to us to make sure that the institution that is the United States Nuclear Regulatory Commission, both evolves to address the current moment in our energy landscape and maintains its core values as we chart a course forward.

And what are those foundations exactly? Well, let's look directly at President Gerald Ford's statement accompanying the passage of the Energy Reorganization Act of 1974, the act that created the NRC. It said the highly technical nature of our nuclear facilities and the special potential hazards which are involved in the use of nuclear fuels fully warrant the creation of an independent and technically competent regulatory agency to assure adequate protection of public health and safety.

In taking a cue from President Ford, as fine a son of Michigan as any, I want to discuss three key elements in more detail: independence, technical competence, and protection of the public.

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First, independence. As a five member bipartisan commission, the agency was deliberately structured by Congress to promote independence from outside influences that might turn the focus away from safety. This was a purposeful lesson learned from the days of the Atomic Energy Commission and implemented through the creation of the NRC.

As President Ford stated shortly before the newly minted U.S. NRC opened its doors in 1975, he said this new commission will devote its full attention to assuring the safety, as well as the reliability, of this critically important source of energy, meaning nuclear, of course. Later, in 1991, the agency adopted our Principles of Good Regulation. Seeking to affirm those behaviors that would, and I quote ensure that our regularity activities are of the highest quality, appropriate, and consistent unquote.

The first of these principles is independence. It reads nothing but the highest possible standards of ethical performance and professionalism should influence regulation. And in just the past year, we've received direction from Congress in the form of the ADVANCE Act, so many really important provisions in that piece of legislation. But the ADVANCE Act also confirmed this principle of independence. Congress directed us to update the agency's mission statement, consistent with both the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974 and

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it notably did not change the NRC's fundamental safety mission or expand our authority.

Often emulated around the world, our independent structure allows us to ask hard questions and make lasting defensible decisions. It allows us to appropriately regulate with safety as the focus, assuring not only we fulfill our obligation to keep the public safe, but also provide civilian nuclear energy with a social license.

However, as our principles of good regulation caution, independence does not mean isolation. The energy landscape has shifted significantly over the last five decades and to make the best decisions possible, we cannot ignore the state of the world around us. Nuclear safety and security don't stop at national borders.

Our country has a long history of collaboration with our global partners. The Atomic Energy Act of 1954 anticipated international partnerships and Section 101 of the ADVANCE Act recognizes the importance of continued engagement on the world stage, like sharing information and contributing to exchange programs and cross border training initiatives.

Long before the NRC came into being, the United States recognized a very important need, the need to come together, not just as one nation, but as a people of the world to promote the safe use of nuclear energy for peace. In his seminal Atoms for

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Peace Address to the United Nations in 1953, President Dwight Eisenhower said it is with the book of history and not with isolated pages that the United States will ever wish to be identified. My country wants to be constructive, not destructive. It wants to agreements, not wars among nations. It wants itself to live in freedom and in confidence that the people of every other nation enjoy equally the right of choosing their own way of life.

Eisenhower wasn't just making a promise to America about the kind of leadership he sought to promote. He was making a promise to the world, a promise to promote peace and prosperity for all.

Now one of my favorite stories about the work we do here at the agency shows how this promise has been carried forward. Get ready. The new world screwworm is a parasitic fly that is attracted to open wounds on any warm-blooded animal. When its eggs hatch, the larvae burrow into living tissue for development. Gross, right? So gross. Many of us don't know anything about screwworms or the level of devastation they can cause to livestock and I certainly didn't before a trip to visit our regulatory counterparts in Panama. The reason that most people in the U.S. don't know anything about the screwworm problem is because this destructive parasite has been functionally eradicated from North America for almost 60 years. And how did that happen? Innovation, international collaboration, and a shielded cobalt-60

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source the size of a coffee can.

Since the early 1960s, the U.S. has partnered with all of the countries between our southern border and Panama to gradually eradicate screwworms from North America. And today, in a joint effort between the United States and Panama, millions of larvae made sterile by that cobalt-60 source are released over the Panama-Colombia border monthly. About \$15 million in U.S. funding saves billions of dollars in agricultural damages each year. That's government-wide in the U.S., not NRC money.

The source, that cobalt-60 source, is licensed by the Panamanian regulator. The license is right there on the wall of the chamber where the sterilization happens, signed by the Minister of Health. And I'm proud that the NRC has supported the regulator in radioactive source tracking, inspections, licensing, and educating radiation protection and health physics personnel in Panama for the last two decades.

As Eisenhower put it, if a danger exists in the world, it is a danger shared by all, and equally, that if hope exists in the mind of one nation, that hope should be shared by all.

In the spirit of President Eisenhower's promise in his Atoms for Peace speech, the NRC has positioned itself as a global leader in nuclear safety and security. We've done this by sharing our decades of experience by creating relationships with regulators around the world and by offering assistance when

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possible. We may be independent, but our independence doesn't dictate that we abandon our posts and leave behind the promises we have made to the world.

Second, technical competence. In my first RIC speech, I talked about the importance of following the data and link data to our safety mission. Following the data is the best way to assure a safety organization maintains its focus. But to be valuable, data has to be collected, it has to be interpreted, and applied appropriately to regulatory decisions. The legacy of knowledge that this agency has built up over five decades is one of our greatest assets. That body of knowledge gives us the confidence in our technical ability at all levels so that we can leverage our vast institution of capital to make better, smarter, more efficient, and more durable regulatory decisions.

We like to refer to risk-informed thinking as a new and innovative concept and certainly risk-informed thinking leads us to innovation in a number of ways: risk-informed categorization of systems, structures, and components; of technical specifications; of completion times. These are all great examples of regulatory advances that were developed through risk-informed thinking. But it isn't really new. Risk-informed thinking has been around since the very beginning of the agency, the premiere example being, of course, WASH-1400, not an AM radio station, but in fact, the original reactor safety study from 1975.

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WASH-1400 was initially treated with skepticism by the nuclear community.

Three Mile Island ultimately confirmed small loss of coolant accidents and operator error as potential contributors to accident risk, as predicted by WASH-1400. It was only then that probabilistic risk assessment, or PRA, started to gain traction. Decades of experience with PRA have led us to where we are now, considering a licensing framework for advanced reactors, known as Part 53, that stands on this incredible legacy. The approach presented in Part 53 is the logical and direct outcome of decades of work on the use of risk information and insights allowing a flexible alternative for applicants to consider alongside our existing deterministic frameworks.

With the changing nuclear landscape, the agency is facing more and more questions that do not have a clear historical reference and these novel issues require a workforce that can problem solve, that can evolve, change, and challenge norms, a workforce that not only has the tool kit, but has the imagination and the confidence to use it.

Now risk-informed regulation is really about characterizing uncertainty and there is necessarily a lot of professional and personal judgment implied in that. Data is critical, but we all know data can be interpreted in a wide variety of ways. Having staff of diverse backgrounds and viewpoints help

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ensure that uncertainties are fully understood and characterized.

Let me be even more clear. Risk informed regulatory approaches not only benefit from diversity of points and backgrounds, they require them. As Tim Berners-Lee, the creator of the World Wide Web, simply put it, we need diversity of thought in the world to face the new challenges.

Now during my time at the NRC, and like my colleagues, I've made it a priority to visit as many universities as possible during my travels. And in one of my trips, I visited Alabama Agricultural and Mechanical University, an institution with incredible STEM programs and a history of strong values, borne out of the example of its resilient founder and former enslaved person, Dr. William Hooper Councill. To all the Alabama A&M alums out there in the audience, a good bulldog morning.

While visiting campus, I spoke directly with bright and ambitious students and made the recruitment pitch for our agency, basically that the energy challenges our country faces requires an all hands on deck approach, that investment in and partnership with the widest possible range of colleges and universities is required to solve the big issues in front of us.

Most students at Alabama A&M assumed that a nuclear engineering degree was a prerequisite for work at the NRC. And it was in talking to a student reporter covering my visit that I realized the need to articulate the full scope of what we do and

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the people we hire. Health physics and engineering degrees are obvious necessities, but we employ people with experience in environmental studies, communications, human resources, finance, doctors and lawyers, geologists, and seismologists.

Diversity, diversity of experience, diversity of thought, diversity of perspective, it isn't a nice to have. It isn't ideology. Diversity is essential to meeting our safety mission and in maintaining a robust nuclear safety culture.

We define nuclear safety culture as the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals, to ensure protection of people and the environment. Starting in 1989, the Commission recognized the importance of safety culture, first in the context of control room operator behavior, and later throughout the entire nuclear industry.

We want our own staff to feel comfortable sharing their perspectives and raising concerns. We want to promote an environment that is open and transparent so that we can make durable, lasting decisions. And I think diversity plays a key role in creating this environment. When we value diverse perspectives and welcome differing views, we demonstrate our commitment to safety. We give our staff the same message we expect licensees to give their own employees.

My point is a simple one. We need diversity because

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we need a technically-competent workforce that can adapt, that can think differently, and that isn't afraid to raise a safety concern.

That brings me to my third and final topic, protection of the public, the heart of our agency's mission. Our mission at its core is based in protection and while the ADVANCE Act recently directed the agency to update its mission, as I previously mentioned, it did not change our safety and security focus as an independent agency. Our main avenue for upholding this promise to the nation is through our regulatory structure, applying it in a clear and reliable manner, and adapting it as appropriately as times change. We're seeing an influx in interest in advanced reactors, accident-tolerant fuels, fusion machines, and although we have a legacy of knowledge to build on for these new areas, we still need to lean forward in our thinking while maintaining that all-important balance that keeps us grounded.

I'm particularly proud of the staff's recent successes associated with the review of the non-light water reactor applications including the streamlined review of the construction permit for Kairos Hermes 2 and the construction permit issued to Abilene Christian University to build the nation's first molten salt research reactor. Our staff demonstrated the technical competence to review these applications efficiently and effectively while adhering closely to our mission to protect public health and safety.

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In recent years, 90 percent of the NRC workforce indicated that it is important to them that their work contribute to the common good. Over 80 percent indicated that they identified with the NRC's safety and security mission. The public servants of this agency are drawn to the work of the NRC because they are completely dedicated. We are here because we believe in something larger than ourselves. And contrary to some of the negative narratives about public servants circulating out there, our unflappable staff have made some major headway in the past year and if it will allow me, I am going to repeat some of the accomplishments that Chairman Wright mentioned this morning because I think it may be a good way to bookend our time together.

We issued those two reactor construction permits, as we talked about. We significantly streamlined our mandatory hearing process. We signed civil nuclear cooperation agreements with Thailand and Singapore. We issued several license amendments for increased fuel enrichment and high-assay, low-enriched uranium. We improved license termination plans for multiple facilities. We accepted the first advanced reactor power construction permit application to date, and as the Chairman noted, got ahead of the schedule on the safety evaluation report. We issued three operating reactor license renewals. We are and continue to be hard at work on the ADVANCE Act. And we've issued Part 53 for public comment. We're further streamlining our

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environmental reviews and that security rule the chairman mentioned, providing flexibility for advanced reactors around security requirements. And that's just the tip of the proverbial iceberg.

Condoleezza Rice said there is no greater challenge and there is no greater honor than to be in public service. We owe it to our employees to make them feel valued and to encourage them to keep up the work they do every day. So to the dedicated NRC public servants that show up every day to protect the public, thank you for your service. Your country needs you.

Bruce Springsteen, maybe not where you thought I was going to go next, President, President, President, Secretary of State, Bruce Springsteen. Bruce Springsteen said the great challenge of adulthood is hanging on to your idealism after you lose your innocence. Or in this case, the challenge of maintaining a lasting institution is assuring that as things change over time, our foundation stays the same.

So let's try this again. I do solemnly swear that I will support and defend the Constitution of the United States against all enemies, foreign and domestic, that I will bear true faith and allegiance to the same, that I take this obligation freely without any mental reservation or purpose of evasion, and that I will well and faithfully discharge the duties of the office on which I am about to enter, so help me God. There is so much

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power in those words. They unite us on a deep level.

Last year, in my speech, I made a pitch for optimism and I said that optimism is a choice to move forward with the confidence that we can overcome the challenges of our day, the belief that we can leverage our history and apply the lessons we have learned to keep striving to build a better future.

And today, I spoke about living up to ideals, about staying true to the foundations of our institution. I defend independence and technical competence and protection of the public because I'm optimistic for our future, because I believe these principles are worth preserving, because my years of experience working alongside the public servants in this agency with their high standards, their strong sense of purpose, their unwavering dedication, give me the confidence that the incredible legacy of the NRC will continue for another 50 years.

I'll leave with you a quote from Harry Truman. America was not built on fear. America was built on courage, on imagination, and an unbeatable determination to do the job at hand.

I am honored to work in an agency full of people that exemplify this every day. Thank you.

(Whereupon, the above-entitled matter went off the record at 11:47 a.m.)

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