

Transcript of “A One-on-One with NRC Commissioner David Wright”

The following is a transcript of the interview between ANS Executive Director/CEO Craig Piercy and NRC Commissioner David Wright on October 24, 2024, at the NRC Headquarters.

Piercy: [00:00:00] Commissioner Wright, thank you very much for sitting down with me today and really look forward to the discussion. You, I believe, are the longest serving current commissioner right now. And you've come into the role without a technical nuclear background. Your background has been more in sort of the policy and the state regulatory regime as a utility commissioner.

How did you approach your transition to NRC some number of years ago? You've kind of taken a different approach than other commissioners. Can you talk a little bit about that?

Wright: [00:48.0] Yeah, thanks for the question. And you are right, when I got here, I didn't know anybody. I didn't come from the backgrounds that the others come from. I'm a small business guy who just got active in politics, got elected, on the local level and state level and, had the opportunity to work at a PUC and learn nationally on some issues and I got involved in the nuclear side of things. When I was asked to go through the process to get here, I had to figure out how do you become a part of a fabric?

How do you engage? How do you learn? The first thing you have to do is hire good people. That was easy because people here are brilliant. They [have multiple] degrees, they're smart. So, you have to rely on them and trust them and empower them to do things for me. So, they have to understand me and know me at which they do.

And then I decided, I had, you know, how do you become a part? So I just started walking the building. I talked to Kim, my administrative assistant, and I asked, “Do we have a map of the complex?” At the time, we were in three different buildings. We had like thirty three or thirty eight floors or something like that.

[00:02:00] And I walked every floor, every cubicle, every office, every guard gate, every supply room, you name it, I stopped and said, “Hi, I'm David. Tell me about yourself.” And people didn't, they didn't know who I was. Seriously, people said, who let you in the building? Where did you come from?

But once they got to know me, and they knew I was commissioner, they at first thought it was a gimmick. But then after maybe a couple of weeks, they realized, Shoot, he's, this is real. And they would, I would just leave for an hour. And my office would start getting calls. He's on our floor, what does he want?

And after a while they realized I didn't want anything, because I could go and I can look in your office and I know what's important to you. And so I could have a dialogue with them as a real person, right? And once you, once you gain their trust and they have

yours they're willing to help you and they will do things for you. They will come to you. And they know that I'm approachable.

[00:03:00] So, that was the first part. The second part was, how do I learn? So, I had to do things a little different, at least I wanted to do them different. I think I was the only commissioner that took the back fit training was offered here, because I wanted to learn what that was that all about. We read papers and we read about the corrective action program and we read about ROP and all that, but unless you have done it, you really don't know it. So, I went to the TTC and spent three days there taking some of the resident training coursework to kind of get exposed to it. And then I, a couple of years ago now, started what I called a resident inspector for a day program where I will actually go to a plant. I start at around 6 in the morning and spend the whole day with the residents. I go through every meeting, if they're doing procedures, walk downs, whatever.

[00:04:00] And I learned exactly how our inspectors work with the licensee And their people and how important that relationship is. Then you realize, you see the corrective action program at work, and you, you see how that, how important it is the way they do things. Not every plant does it the same way, but they do the same thing, right? Our inspectors are amazing, the interaction that they have with the licensees' people is critical. And that trust is really important, it's a two-way street, right? We may be the regulatory side, but we're on the same team. So, I learn from them, and I guess I have to be immersed a little bit right? I think that's the way I've gone about it.

[00:05:00] **Piercy:** Yeah. What surprised you the most in your time here? Obviously, you've gotten to know really almost from the ground up the people in the team that you have here at NRC, but there must be something that you didn't expect coming in that you see now and were surprised about.

Wright: Well, so in my walk arounds, because I did, I was on, I was on my third go around when COVID hit, right? And I did it not just here in the complex up here, but I did it in each region as well. The initial thing I found was that people were in silos. They lived in their little world. They didn't really communicate like they would in the private sector.

And I thought, well, you know, but they're very smart and they know what they're doing. But there's a connection that needs to happen, right? If you're gonna change culture, and you're gonna be what you say you want, and do what you say you want to do, right? Be risk informed, performance based, whatever, it takes, a lot of communication to do this.

[00:06:00] So, one, I saw that as a challenge that the NRC had to overcome. Right. and then the second thing that I learned is, I had a number of people said, I've been here 25 years. You're the first commissioner that's ever been in my office. You're the first commissioner that's ever spoken to me. So, I was like, there's an opportunity for leadership here. Right? They're craving that leadership. They want that, and so we have to, you have to model what you want. If you want this, you want to change, you have to

be the change, you have to model the change. You know, it's gimmicky and so you want to put people in positions of authority in the agency who will all focus on what the mission is, what the message is, and then work to drive that down all the way to the floor. And then make sure that it's there and bring it back up. It takes time.

[00:07:00] **Piercy:** So, we've seen this last summer, Congress overwhelmingly passed bipartisan legislation, the Advance Act, right, which includes a number of different provisions designed to make the Commission more proactive and it's now over to you and the Commission on this to implement the direction of the ADVANCE Act. How do you see that playing out and what changes do you think we'll see at the end of that process?

Wright: that's a hard question really to answer because we're going through it now. I know that the intent, you know, we've always said we don't want to be the reason why. We didn't want to be the block, but Congress made that abundantly clear that they wanted us to be an agent of change. They wanted, we could not, we could no longer do things the same old way. And I believe that ahead of time anyway because if you do the same thing the same way every day, that's a recipe for failure, right, because you're never going to change.

[00:08:00] So that's what they want us to do is become more efficient on things. And efficient doesn't mean doing things with less or doing more with less. It just means, okay, be risk informed in what you're doing, right, focus on the most safety significant things, be informed by history and things that you have done over time, and understand, it's okay to think outside the box and be bold. If we got to stay in the safety envelope, you know, that strike zone that I talk about all the time, and sometimes if there's a novel issue, it might take a heartbeat longer to get there. But knowing what we know and how we've done things over the last 50, 60 years, we should be able to be more efficient and more effective in our, how we go about our business.

[00:09:00] **Piercy:** Yeah. Cause it seems to me that the challenge of a regulator is there's room to get more efficient, but at some point you get to a line where, you know, you have to begin to be concerned about the efficiency initiatives that you might be working on affecting safety, right? So, how do you approach that challenge of finding the line and staying on the right side of it?

Wright: Well, I think it's going to be determined by the technology you're looking at. How, you know, we have a lot of experience with light water, but we don't have a lot with molten salt or other forms. So, those things that are new to us, but we still have that responsibility for that strike zone for safety, right?

We're never gonna take our eyes off of that ball. But within that safety envelope, we have to be responsible in a lot of ways, right? We have to be efficient. We have to use the resources that we've been given, not just by the licensee through fees, but through Congress as well.

[00:10:00] We have to do what we can to get things done quicker, you know, staying in that envelope, because I do believe, personally, that we owe the people who are giving us money to review things, we owe them a pretty shared responsibility to do that on time, efficiently, and quite honestly, on budget.

Piercy: Right. Well, and it's a shared responsibility, too, because the vendors and the designers are coming in with their applications, but there's a certain expectation they need to come in with a level of detail and completeness. So. it's really a partnership between NRC and the licensees.

Wright: Well, I do think that over the last few years since the NuScale thing that went on with them, we learned a lot about how to be more efficient there and how to do things in a risk informed way.

[00:11:00] We use core teams, for example, and I think it's important for us to do those things, because it does maximize our efforts, right? And early engagement, we found that is critical to all of this. The more we can get done on the front end, like topical reports on novel things, new and novel, if we need to hire expertise to do something, that gives us time to do that. So, it helps us identify maybe weaknesses and shortfalls, and at the same time, it allows us to work with the applicant, potentially, or the licensee on, "hey, this is important, we're going to need this right here in order to build a safety case." I don't care how you bring it to me, but we're going to need that, right? And it gives a clear understanding where the lines are and it provides for a more robust application.

[00:12:00] We're challenging staff to try to get these things done, SLRs and upgrades and all that, and any other license review in 18 months. We're challenging them there to do that and they're accepting the challenge. I think there are a number of people who are new in the agency to leadership roles. They're thinking outside the box, which is what's needed right now.

Piercy: Yeah. So, one of the provisions of the ADVANCE Act, Section 501, talked about the mission statement of the NRC and specifically that it should be conducted in a matter that's efficient and doesn't unnecessarily limit the civilian use of radioactive materials or deployment of nuclear energy. How do you interpret that legislation from Congress, and how do you see the Commission reacting to it?

[00:13:00] **Wright:** Well, we are told, right, and I guess when they split, after the AEA, when they split us up and DOE was formed, and we were flanked. We're not supposed to be consultants, right? And we're also not supposed to be promotional.

I get that, but to me promotional, being promotional means picking winners and losers. We don't do that. That's DOE. We have to be able to review anybody who comes before us. Having said that, we've been challenged by Congress not to be a blockade, that we are too enable the safe use of nuclear technologies, and I can even probably stretch

that to say we should also enable the safe deployment as well, not just here, but around the world.

Piercy: Because I think that the times are changing, we're in a different place now, right? There's a broader context to nuclear energy. I mean, nuclear safety is important, critical, but then, you have carbon emissions, decarbonization, there's a global context to nuclear energy that's different now than it was a few years ago. I mean, is that really part of it, is sort of acknowledging that context?

[00:14:00] **Wright:** Absolutely. I mean, part of our principles of good regulation, if you read inside them and interpret them, we're supposed to be externally aware of what's going on around us, right? And right now, we have a national security component to this about energy security, energy independence, not just here, but to our allies around the world. We want to be sure that we are getting things done with U. S. technologies, license them, certify them, whatever we have to do, whatever we're being asked to do, so that the U. S. government can meet their mission as well, right? Because if we develop a relationship with a country using nuclear technologies then the NRC is the gold standard. It's up to the, our state government, our U. S. government to cut those deals.

[00:15:00] **Piercy:** Yeah. Right. In general, when it comes to regulation, you've seen this broad arc within the NRC to move away from deterministic regulation to risk informed or risk-based approach to regulation. But when you talk to people about, say, risk informed, performance based, or risk based, everybody kind of has their own opinion as to what that means. How do you confront that? What's your thought process around risk informing the process, and the difference between risk informed and risk based.

Wright: Well, I'll try not to oversimplify it, but really, it's, it's focusing on the most safety significant areas.

[00:16:00] Once you've reached a conclusion, you move on to something else, right? I think that we have a lot of data, we have a lot of history of operation and those areas where we are weak, potentially, we have time to fill that void, right? But I do think in the end, it just comes down to focusing on the most safety significant areas.

Piercy: So, obviously, there's been a pre-publication rule released for Part 53, and I know there's some limitations on sort of being able to talk about things that are currently under regulatory review, but Part 53 has been going on now for what, three or four years now, right? There have been a few swings at the plate on it. Can you talk a little bit about how you've seen the process work? Tell me what you can about what's happened so far and where you see this going without necessarily crossing that line.

[00:17:00] **Wright:** Well, first off, staff's done a lot of work, right? They held a lot of meetings with people over the last two years or longer. They had a two-year period, then we had to rule for a year, but when staff were going through their process before they sent their draft up to us, they had dozens and dozens of meetings with stakeholders.

There was a thought and a belief, quite honestly, and I think it was a shortfall on the staff's part, that they didn't really incorporate what they heard. That was the view. So, when we got the rule up upstairs, the commission as a whole was not happy. So, we basically took a year, and the commissioners worked together very closely to draft a rule.

[00:18:00] We agreed, we put out an SRM that really captured what the commission was thinking and sent it back down to staff. Staff did a pretty good job with most of the items. There's one, the flexibility part is not, it falls short in my opinion. And so it's up to us. It's been out to be published and so there'll be a lot of comments and probably on that area, I'm guessing it's going to be on the flexibility pathways, right? It seems to be very PRA focused, maybe LMP, we've heard that term, which is, that's okay. That can be part of it, right? But we need to have the flexibility for pathways for other technologies. I voted, maybe you know this, but I wanted the applicant, the vendor, the applicant, whoever, to come in, and be able to, bring their design, their risk metrics, their safety case, and, and prove that, right?

[00:19:00] And if everyone could do that because all the technologies are different, I don't think there's a one size fits all here. Right, so, I think that's what's lacking right now and hopefully that'll, we've got time to work that through. Yeah.

Piercy: Well, and it seems like you do have time because most of the advanced reactor license applications are running through Part 52 or mostly Part 50, I think you would say at this point. And so, Part 53 really kind of comes into play in the future, and the assumption is that Part 53 has to be an incentive for developers to go to Part 53 or else they'll go to what they know and what's been proven by the NRC, right?

Wright: That's the beauty about 50 and 52 is that we are learning as we go with that too, right? And we know what areas they need exemptions on or whatever. So, we can still get those technologies through. As we're seeing right now with the ones before us.

[00:20:00] **Piercy:** Right. So, there's been a lot of discussion about international regulation. Originally, there was a discussion at the IAEA over international harmonization of regulations. But that seems like a pretty challenging and complicated task to get done. How do you see the international role for the NRC in harmonizing or at least aligning regulations, especially with other countries that might be developing the same technologies as we're planning to deploy here? What do you see the role for the NRC?

Wright: Well, it's a big role and it's wide ranging. It's important, I mean, we're the gold standard, right?

[00:21:00] That's how we're viewed around the world. I think that it's important for us to work with other countries, but they're not all at the same maturity level, right? Some programs are new. Some are very mature. I think it's important and we're learning that through our relationship with Canada and now with the UK added to it as well, those

interactions to try to review things jointly allows some efficiency there. But in the end, what you're really developing is a package of information that could be used by either country or any country to go through an application process, licensing process that each country would do on their own.

[00:22:00] As we're a sovereign country here, I don't want to say, and I don't want England or Canada to say we're going to accept what you say and we're going to license it. I think that's taking away some of our sovereign right. I think that's where the line would be drawn, but to work with other countries in a, in multilateral situation on designs or programs or whatever, I think is very, very smart, because this is a global need, and these are global technologies. Right?

Piercy: Right. And I would imagine there's an opportunity to learn from each other in this process. I think of the BWRX 300 and the plan to essentially have identical designs in the U.S., Canada, and Poland. Each regulator may go about it a different way, but there are things to learn from each other.

Wright: Yes, I've done three of these visits now where I've gone with the U. S. government as part of their team, you know, Commerce, DOE.

[00:23:00] Then I've been to Romania, I went to Ghana, and I just came back from Kenya where I was with Lisa [Marshall], your president. And being a part of that program, you, you get to see firsthand, hear firsthand what the country's looking at, where they're at in the process, why it's important, what our role is as the U.S. government, and then what our role would be as the NRC. In a lot of these countries, we've already been there talking to some of these countries and helping them with source security programs and things like that. So, we have an idea, but we can't do certain things until maybe there's a 1, 2, 3 agreement in place, right? But these countries are still moving forward. They want to use an NRC licensed or NRC certified design, but they now realize that there's probably, they're going to have to make decisions and maybe move forward, and be, and the first one to build that design.

[00:24:00] They would love it to be built here in the U.S. first, though. So, I see that as a little bit of a change right now, that there's the urgency. It's there. Right? And we need to recognize that and understand what our role is and why, what our people are doing here in review. I mean, look at what you can do for the future of the world. You're not just reviewing a document; you're actually making a difference. If we can get this thing through, you're giving clean water, you're helping food to grow, you're giving young children the opportunity to learn, prosper, grow, and provide for their families and their country economically as well, it's the analogy that I hear most of, that I kind of associate it with is the old story about NASA when the janitor was cleaning and some big wig came through and he was lost and he was trying to find a way out.

[00:25:00] His visiting late, the place was closed, and he asked the janitor, he said, what do you do here? And he says, well, I'm putting a man on the moon. Right? It's the same thing here.

Piercy: Right. Well, that's a perfect pivot point to the discussion of workforce, right? Because I think like many other federal agencies, the NRC has a challenge to hire and get the right number of qualified people to be able to do its duties in an efficient and time efficient way. Especially, these days it's hard to find new talent. Talk to me a little bit about how you see the path forward for the NRC and ensuring that it has the capability it needs to discharge its duties.

Wright: So, this issue started showing its head a few years ago, but it was in the area of certified health physicists. There's a shortage and it's not just in the US, it's worldwide. We were learning about it through the organization of agreement states, right?

[00:26:00] Because states were poaching from other states. We were even poaching from the states to bring people on. So, realizing there's a shortage there how do you refill that pipeline? How do you get it flowing again? So, there's been an effort to try to work with the, the health physics society and university programs when I go and speak and other commissioners do the same, and to try to push that area to get people interested because it's a big area and you can raise a family on that and then salary adjustments on states. That's a whole other issue, right? That's state governors and legislatures will have to deal with that, but we recognize it's real, we provide three years of training to somebody in one state, and they're poached by another state.

[00:27:00] They can pay him \$40,000 more, right? That's a real issue. Same thing is happening here, right? Now, the Advance Act did give us some tools for recruitment and retention, as well as some direct higher authority that we're trying to take a look at now and how we would apply that. But we have to be sure that we know, What we need. And that could be from a technology-to-technology thing. We did a plan, a direction plan on milestones and markers and they had four quadrants and what if it went this way, what if it went this way, what if it went down, what would we need and where, how would we go? Right? Now we've got a new OCHECA, a new human resources person there, and I believe she already is putting a work group together to try to look at the workforce plan, what we might need in the future. I think it comes down to making sure we know what we need. Don't just go hire.

[00:28:00] Now we can build employees, you can either bring them in with experience, targeted for what you need, or you can own it. Which means you're going to bring in a new person and you're going to train them up, but that takes several years to get them to where they need to be, right? So, we've got to get in front of that. And we're doing our best to do that. I think that with the NRC it's kind of a chicken and egg thing, right? Because the industry wants certain things done. The Congress wants certain things done. We want certain things done. But if we don't have the orders, if we don't have the paper, the applications, right? We can't go out and hire in anticipation of, and then it not happen, because of the way we do our budgeting. We have to bill for what is in the budget, and if it doesn't come, we still have to collect in fees, so I think there's, there's an opportunity here for our leadership to work with industry on what is the best way for us, the NRC, to get those people ahead, be proactive in this instead of reactive?

Because I think we're going to have to be more proactive here going forward because of what's coming.

[00:29:00] **Piercy:** Right, and I think complicating that to an extent, I would imagine, is what happened 20 years ago with the nuclear renaissance, where the NRC staffed up expecting 28 COLA applications, and it didn't materialize. And so, you had a half building across the street then, I'm sure, a fairly lengthy process of unwinding that. And now you find yourself in a similar situation again, maybe a little bit more trepidatious about, about trying to skate to where you think the puck might be. How much of a role does that play in the decision making?

[00:30:00] **Wright:** Well, I think that the past, what happened in the past has really been one of the things that's held, held things back, right? Because the renaissance didn't come. Now, is this the renaissance now? Kind of looks like it, so we've got to be ready. But I, again, we have to be responsible as well with the dollars we get. And so, we've got to do a better job of predicting and working, and I think we've got to work more closely with industry about what do you really think is coming in the short term and then, here's what we think we might need.

Are you all good with that? Mm hmm. Right? Mm hmm. Because, they're going to have to pay for it in fees if we staff up. Right. They get, it's going to cause, there's that issue, right? And then we have to be, I think we've got to be smarter about what is really coming. Then if something doesn't come, because it's been, there's been that issue, right?

[00:31:00] They plan for it and then for some reason, Mm hmm. The boardroom decided something different. Right? We have to recognize those things and understand how do we reprogram that money within that line or move it to where it can be utilized. Right. Because carrying forward is a big deal.

Piercy: Yeah, exactly. Yeah, exactly. So, I want to talk a bit about Fusion because the, the commission made a pretty, I mean, you could argue, momentous decision. to, to regulate fusion energy generation through, through Part 30. Yes. Can you walk me through the thought process there and, and I'm also curious to see what you think needs to happen at the state level in order to be ready for it. Obviously, fusion's a little bit further down the road than fission, but it takes time to get ready for these things. But talk to me about was it, were you there in the beginning or did it require a conversation to get [00:32:00] to that decision?

Wright: So, I think one of the things about fusion that was different than anything else that we've done was the early interaction with the fusion people. They, I mean, they came early even before they had an association. People were engaging. We, we've always heard, it's ten years away, it's ten years away. Right. I think it's, it's closer than that now. I mean, the difference in the education process that took place, not just of the commissioners, but of our staff, became obvious that, yeah, this is different, and the states are ahead of us in this already. Right? The states knew more about it than we did.

So, it made sense. for us to become a partner to the state. Although we knew we had to regulate it through some part, and Part 30 was what was where it landed. We thought the opposite, because there was conversation on different ways to go, and I think in the end we made a, I think we made a smart decision there, a good decision.

[00:33:00] Now it's up to Josephine, working with the states, what's, what's the next course of action that we've got to address. And obviously they've got to have people who are trained to inspect now while they're gearing up and then they've got to be able to follow through once something gets, is under construction and gets built.

Piercy: Right. So, another topic that maybe is, I don't want to say challenged, but, the whole issue of micro, mobile micro reactors and how you, how you license those. I mean, there's, there's discussion about Miguel, but I've heard, I don't know, many gigawatts needed in the Permian Basin. And there are other places where the traditional model of nuclear being the stick-built plant no longer really seems to apply. And I think that my sense is the Commission's kind of been on the front foot in terms of looking [00:34:00] at, at licensing those systems differently and taking a different approach. Can you talk a little bit about that?

Wright: Yeah, so this is another situation where early engagement has happened and is happening. We had different groups come in, depending on what the technology or the use was going to be, right? So, oil and gas people in the Permian Basin, I mean, they've got a, they have a real interest in why they want nuclear, right? It's cleaner, obviously, they want to use it for extraction and piping it to the refinery. That they need then you've got the industrial uses like Dow Chemical's trying to do. And so, we know that it's going to require us to be a different type of regulator. The big plants aren't going away. They're going to still be there.

[00:35:00] We're still going to be that NRC, too. But now the NRC has to put on another hat and develop a process for inspecting, doing QA, maybe manufacturing in a plant somewhere, transportation, getting it to a place, getting it hooked up. It's a really, really exciting time. And the technologies are just as exciting that are out there. We've got to be ready to put the program together because, how do you pay for it? How do you inspect it? Those are things we have to be thinking future on as well. Right?

Piercy: well just kind of wrapping up what do you expect if you, if you were to fast forward five years and, and, and look back Yeah. Generally, where do you, where do you think the NRC will be? Where do you, you know, what, where do you, what's the puck that you're, that you're skating toward now? That's, that's five years out of you? Well, the first puck would be to get another five years.

Wright: So, I hope in five years I'm looking backwards from where I'm at right now [00:36:00] and stay in the NRC. Let's assume that, but should I have the good fortune to do that, I'm hopeful that we're going to see some of these technologies actually working; built and running. I'm hopeful that we're going to have, we're going to start the dialogue on maybe some other things that could be happening in the future.

I mean, is reprocessing going to happen down the line and what, what's that going to look like? Are technologies going to be available for that? Or are there going to be technologies who would use reprocessed fuel, right? And some of these smaller technologies. I don't know that we've seen, right now it's just the tip of the iceberg.

But in the end, hopefully we've got, in 5 years, maybe we've got 6 to 10, 12 different designs out there or are actively building. Because right now it seems, the difference here, right now, they've got customers. For these different technologies. They've got people who want them. That in itself is new and [00:37:00] exciting for them.

Right. So, yeah, I'm looking forward to seeing things built and watching the NRC as an agency. Because it's a very close knit family of people. Very specialized in what they do. But this is an opportunity for us to grow, and to provide opportunities for people who have invested so much time and education and into this agency. I mean the future for them is very bright and the new people coming on, they're going to be the ones that are going to build that future. They're going to. Really in five years, some of the ones who just got here, they're going to be the old timers. Because we're hiring that many. Some generational change to manage within the organization. So, I think the future is really, really bright. I'm excited to be here during this time. I mean, I've got great colleagues to work with the staff is very open and they're trying to make the changes that need to be made.

[00:38:00] And we've got good people. Mirella now is our EDO. We've got our new general counsel, Brooke, is great. We're putting other people in positions underneath them that are hopefully going to be those agents of change and those guys and gals that are going to help drive that message, that culture change to meet the moment that is right here before us. I think it's an exciting time and I've got to model that and I've got to help support that and that is what I plan on doing.

Piercy: All right. Commissioner, thank you very much. It's been a great conversation.

Wright: Yes, sir. Thank you. Thank you.